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NEWS 5	Aug 19	Aquatic Toxicity Information Retrieval (AQUIRE) now available on STN
NEWS 6	Aug 26	Sequence searching in REGISTRY enhanced
NEWS 7	Sep 03	JAPIO has been reloaded and enhanced
NEWS 8	Sep 16	Experimental properties added to the REGISTRY file
NEWS 9	Sep 16	CA Section Thesaurus available in CAPLUS and CA
NEWS 10	Oct 01	CASREACT Enriched with Reactions from 1907 to 1985
NEWS 11	Oct 24	BEILSTEIN adds new search fields
NEWS 12	Oct 24	Nutraceuticals International (NUTRACEUT) now available on STN
NEWS 13	Nov 18	DKILIT has been renamed APOLLIT
NEWS 14	Nov 25	More calculated properties added to REGISTRY
NEWS 15	Dec 04	CSA files on STN
NEWS 16	Dec 17	PCTFULL now covers WP/PCT Applications from 1978 to date
NEWS 17	Dec 17	TOXCENTER enhanced with additional content
NEWS 18	Dec 17	Adis Clinical Trials Insight now available on STN
NEWS 19	Jan 29	Simultaneous left and right truncation added to COMPENDEX, ENERGY, INSPEC
NEWS 20	Feb 13	CANCERLIT is no longer being updated
NEWS 21	Feb 24	METADEX enhancements
NEWS 22	Feb 24	PCTGEN now available on STN
NEWS 23	Feb 24	TEMA now available on STN
NEWS 24	Feb 26	NTIS now allows simultaneous left and right truncation
NEWS 25	Feb 26	PCTFULL now contains images
NEWS 26	Mar 04	SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 27	Mar 19	APOLLIT offering free connect time in April 2003
NEWS 28	Mar 20	EVENTLINE will be removed from STN
NEWS 29	Mar 24	PATDPAFULL now available on STN
NEWS 30	Mar 24	Additional information for trade-named substances without structures available in REGISTRY
NEWS 31	Mar 24	Indexing from 1957 to 1966 added to records in CA/CAPLUS
NEWS 32	Apr 11	Display formats in DGENE enhanced
NEWS 33	Apr 14	MEDLINE Reload
NEWS 34	Apr 17	Polymer searching in REGISTRY enhanced

NEWS EXPRESS	April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
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=> file medicine
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=> s (allergen or allergenic or allergy)
L1      561038 (ALLERGEN OR ALLERGENIC OR ALLERGY)

=> s l1 and (aluminum or aluminium)
L2        6403 L1 AND (ALUMINUM OR ALUMINIUM)

=> s l2 and (aerosol or spray or sprayable)
  34 FILES SEARCHED...
L3      2312 L2 AND (AEROSOL OR SPRAY OR SPRAYABLE)

=> s l3 and (inanimate or non-body or nonbody or furniture or bedding or household
or carpet)
  21 FILES SEARCHED...
L4          161 L3 AND (INANIMATE OR NON-BODY OR NONBODY OR FURNITURE OR BEDDI
                NG OR HOUSEHOLD OR CARPET)

=> d l4 ibib kwic

L4   ANSWER 1 OF 161  CAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2002:615415  CAPLUS
DOCUMENT NUMBER:          137:159356
TITLE:                    Allergen neutralization compositions
                          containing aluminum ions
INVENTOR(S):              Yoshikawa, Akikazu; Chatterjee, Ranjit; Kobayashi,
                          Ryoko
PATENT ASSIGNEE(S):       The Procter & Gamble Company, USA
SOURCE:                   PCT Int. Appl., 38 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.        KIND  DATE        APPLICATION NO.  DATE
     ---------------   ----  --------    ---------------  --------
     WO 2002062354      A1   20020815      WO 2001-US4070   20010208
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
             HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     US 2002150540      A1   20021017      US 2002-71599    20020208
PRIORITY APPLN. INFO.:                  WO 2001-US4070   A1 20010208
REFERENCE COUNT:          10    THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT
TI   Allergen neutralization compositions containing aluminum
     ions
AB   Allergen neutralization compns. for use on inanimate
     objects contain an effective amt. of an allergy neutralizing
     aluminum ion, and a solvent.  The allergen
```

neutralization compns. are **sprayable**, and 60%, by wt. of the **aluminum** ion is provided as a salt of an anion selected from the group consisting of sulfate, chloride, nitrite, potassium sulfate and mixts. thereof. The compn. preferably contains essentially no **aluminum** chlorohydarate, and may contain addnl. **allergen** denaturing compds. such as polyphenol compds., hydrogen peroxide, salicylic acid, citric acid, lactic acid, glycolic acid, addnl. metal ions and mixts. of these. Other optional ingredients include film forming polymers to control the **allergen** contg. dust. These **allergen** neutralization compns. provide excellent efficacy against various allergens, and specifically, the allergens assocd. with house dust mites and other common allergens such as cat dander, pollen and the like. Moreover, these compns. do not stain common **household** surfaces. Thus, a compn. contained Al2(SO4)3 3.0, **aluminum** ion 0.5, tannin 0.05, buffer 0.05, diethylene glycol 0.4, wetting agent 0.05, EtOH 3.0, and water balance to 100%.

ST **allergen** neutralization **aluminum**

IT Mite and Tick
Solvents
Wetting agents
(**allergen** neutralization compns. contg. **aluminum** ions)

IT Allergens
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(**allergen** neutralization compns. contg. **aluminum** ions)

IT Polymers, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**allergen** neutralization compns. contg. **aluminum** ions)

IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**allergen** neutralization compns. contg. **aluminum** ions)

IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(di-Me, Me hydrogen polysiloxane-; **allergen** neutralization compns. contg. **aluminum** ions)

IT Polysiloxanes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(di-Me, Me hydrogen, polyoxyalkylene-; **allergen** neutralization compns. contg. **aluminum** ions)

IT Alcohols, uses
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(lower; **allergen** neutralization compns. contg. **aluminum** ions)

IT Phenols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyphenols, nonpolymeric; **allergen** neutralization compns. contg. **aluminum** ions)

IT 50-21-5, Lactic acid, biological studies 50-81-7, Ascorbic acid, biological studies 69-72-7, Salicylic acid, biological studies 77-92-9, Citric acid, biological studies 79-14-1, Glycolic acid, biological studies 149-91-7, Gallic acid, biological studies 526-95-4, Gluconic acid 7439-95-4, Magnesium, biological studies 7440-02-0, Nickel, biological studies 7440-32-6, Titanium, biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 7446-70-0, **Aluminum** chloride, biological studies 7722-84-1, Hydrogen peroxide, biological studies 7784-13-6, **Aluminum** chloride hexahydrate 9002-89-5, Poly(vinyl alcohol) 9003-01-4, Poly(acrylic acid) 9003-39-8, PVP 9004-67-5, Methyl cellulose 9004-67-5D, Methyl cellulose, derivs. 9005-25-8, Starch, biological studies 10043-01-3, **Aluminum** sulfate 10043-67-1,

Aluminum potassium sulfate 13473-90-0, **Aluminum** nitrate 14047-62-2, Nitrous acid, **aluminum** salt 18917-91-4, **Aluminum** lactate 22537-50-4, Stannic ion, biological studies 22541-90-8, Stannous ion, biological studies 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**allergen** neutralization compns. contg. **aluminum** ions)

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L4 ANSWER 2 OF 161 IFIPAT COPYRIGHT 2003 IFI

AN	10206833 IFIPAT;IFIUDB;IFICDB
TITLE:	**ALLERGEN** NEUTRALIZATION COMPOSITIONS CONTAINING **ALUMINUM** IONS
INVENTOR(S):	Chatterjee; Ranjit, Higashinada-ku, JP Kobayashi; Ryoko, Higashinada-ku, JP Yoshikawa; Akikazu, Higashinada-ku, JP
PATENT ASSIGNEE(S):	Unassigned
AGENT:	THE PROCTER & GAMBLE COMPANY INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER-BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224, US

	NUMBER	PK	DATE
PATENT INFORMATION:	US 2002150540	A1	20021017
APPLICATION INFORMATION:	US 2002-71599		20020208
FAMILY INFORMATION:	US 2002150540		20021017

DOCUMENT TYPE:	Utility Patent Application - First Publication
FILE SEGMENT:	CHEMICAL APPLICATION
NUMBER OF CLAIMS:	20

TI **ALLERGEN** NEUTRALIZATION COMPOSITIONS CONTAINING **ALUMINUM** IONS

AB **Allergen** neutralization compositions for use on **inanimate** objects having an effective amount of an **allergy** neutralizing **aluminum** ion, and a solvent. The **allergen** neutralization compositions are **sprayable**, and at least about 60%, by weight of the **aluminum** ion is provided as a salt of an anion selected from the group consisting of sulfate, chloride, nitrite, potassium sulfate and mixtures thereof. The composition preferably contains essentially no **aluminum** chlorohydarate, and may contain additional **allergen** denaturing compounds such as polyphenol compounds, hydrogen peroxide, salicylic acid, citric acid, lactic acid, glycolic acid, additional metal ions and mixtures of these. Other optional ingredients include film forming polymers to control the **allergen** containing dust. These **allergen** neutralization compositions provide excellent efficacy against various allergens, and specifically, the allergens associated with house dust mites and other common allergens such as cat dander, pollen and the like. Moreover, these compositions do not stain common **household** surfaces.

ECLM 1. An **allergen** neutralization composition for use on **inanimate** objects, the composition comprising: an effective amount of an **allergy** neutralizing **aluminum** ion; and a solvent; wherein the **allergen** neutralization composition is **sprayable** and wherein at least about 60% by weight of the **aluminum** ion is provided as a salt of an anion selected from the group consisting of sulfate, chloride, nitrite, potassium sulfate.

ACLM 2. The **allergen** neutralization composition of claim 1, wherein at least about 70% by weight of the **aluminum** ion is provided as a salt of an anion selected from the group consisting of sulfate,

chloride, nitrite, potassium sulfate. . .
3. The **allergen** neutralization composition of claim 1, wherein the composition comprises essentially no **aluminum** chlorohydarate.
4. The **allergen** neutralization composition of claim 1, wherein less than 10% by weight of the **aluminum** ion is provided as **aluminum** chlorohydrate.
5. The **allergen** neutralization composition of claim 4, wherein less than 5% by weight of the **aluminum** ion is provided as **aluminum** chlorohydrate.
6. The **allergen** neutralization composition of claim 1, comprising film forming polymers selected from the group consisting of starch, polyvinyl alcohols, methyl cellulose. . .
7. The **allergen** neutralization composition of claim 6, wherein the film forming polymers are present at about 0.001% to about 20%, by weight, of the **allergen** neutralization composition.
8. The **allergen** neutralization composition of claim 7, wherein the film forming polymers are present at about 0.01% to about 10%, by weight, of the **allergen** neutralization composition.
9. The **allergen** neutralization composition of claim 1, further comprising additional **allergen** denaturing compounds selected from the group consisting of polyphenol compounds, hydrogen peroxide, salicylic acid, citric acid, lactic acid, glycolic acid,. . .
10. The **allergen** neutralization composition of claim 1, wherein the composition neutralizes at least about 50% of **allergen** containing proteins as measured by the ELISA test protocol.
11. The **allergen** neutralization composition of claim 10, wherein the composition neutralizes at least about 60% of **allergen** containing proteins as measured by the ELISA test protocol.
12. The **allergen** neutralization composition of claim 1, further comprising a wetting agent.
13. The **allergen** neutralization composition of claim 9, wherein the additional metal ions are selected from the group consisting of ions of zinc,. . .
14. The **allergen** neutralization composition of claim 13, wherein the additional metal ions are selected from the group consisting of zinc, stannous and. . .
15. The **allergen** neutralization composition of claim 1, wherein the solvent comprises water.
16. The **allergen** neutralization composition of claim 1, wherein the solvent comprises from about 0.01% to about 20% by weight of the composition. . .
17. The **allergen** neutralization composition of claim 16, wherein the solvent comprises from about 0.05% to about 10% by weight of the composition. . .
18. The **allergen** neutralization composition of claim 1, wherein the **aluminum** ion is present in the composition at about 0.001% to about 10% by weight, of the **allergen** neutralization composition.
19. The **allergen** neutralization composition of claim 18, wherein the **aluminum** ion is present in the composition at about 0.01% to about 5.0% by weight of the **allergen** neutralization composition.
20. The **allergen** neutralization composition of claim 1, further comprising a miticide.

=> d l4 ibib kwic 3

L4 ANSWER 3 OF 161 COPYRIGHT 2003 Gale Group

ACCESSION NUMBER: 2002:161503 NLDB
TITLE: Deodorants: taking a walk on the mild side. (The Market

Report).
SOURCE: European Cosmetic Markets, (1 Jul 2002) Vol. 19, No. 7, pp. 247(18).
ISSN: ISSN: 0957-1515.
PUBLISHER: Wilmington Publishing Ltd.
DOCUMENT TYPE: Newsletter
LANGUAGE: English
WORD COUNT: 12857

TX A steady stream of innovative products, new fragrances and judicious price rises helped the French deodorants and body **spray** market to sustain its growth throughout 2000 arid 2001. According to ECM calculations based on estimates from the FIP (Federation. . .

According . . . company says that, according to IRI, 62% of 12-18 year old women and 55% of 19-25 year olds prefer the **spray** format. At the same time, says LaScad, these young women demand the utmost efficacy from their deodorants as they see. . .

In response, LaScad has added the Fraicheur Pure **spray** to its Non! de Narta roll-ons and sticks. Described as ultra-effective, the new **spray** is said to reduce sweat production without blocking the natural process of perspiration thanks to a new generation of actives. . .

But . . . developed Rexona Source for women and Rexona Ionic and Sensitive for men, all of which contain DTPA. The antiperspirants contain **aluminium** salts to regulate perspiration and kill off odour-causing bacteria. However, the salts cannot stop the bacteria from reproducing, which is. . .

The . . . excitement thanks in part to its fragrance combining citrus fruits with white mint and coriander. The Sensitive roll-on, sick and **aerosol** have a light citrus scent and Pro-Derma Active, a complex of essential oils which is said to maintain the lipid. . . hand, has a peppery, ultra fresh fragrance and is said to be the most effective antiperspirant on the market in **spray** and stick form.

Gamier . . . has created a new line called Douceur de Lin Blanc (Softness of White Linen), which consists of a roll-on, a **spray** and a concentrated **spray**. Each has a delicate linen flower fragrance and is said to be sensual yet very effective against perspiration and body. . .

Bourjois . . . well-being benefits but has added another ingredient to the mix. Originally available as a roll-on, Juste au Corps is a **spray** designed for women who wear close fitting clothes, particularly in synthetic fibres. The APD offers 48 hour protection and dries. . .

Designed . . . (Lever Faberge/Unilever) has developed the Sensitive line of deodorants which is hypoallergenic and free of alcohol, colourings and preservatives. The **spray** and stick contain Dove's signature 1/4 moisturising cream, and, except the roll-on, feature a new fragrance combining water flowers, fresh. . .

Nivea . . . a product for sensitive skin. Nivea Sensitive is described as ultra gentle, being fragrance, colouring and alcohol-free. The antiperspirant uses **aluminium** chlorhydrare to close the sweat pores and reduce sweat flow, A bacteriocide helps prevent odour.

In February, Laboratoire Addax introduced Zirconal Body, which combines **aluminium** and zirconium salts in what it calls the first care deodorant range on the market. The alcohol and fragrance-free roll-on. . . triple action thanks to triclosan, the two salts and alcohol for

additional antiperspirant protection. The two new products join a **spray** and a roll-on gel.

April . . . conventionally, SVR's Spinal roll-on is aimed squarely at the armpits and contains soothing allantoin. The long lasting formula also contains **aluminium** salts and is said to avoid staining, and is presented in ergonomic packaging.

FRANCE: DEODORANT AND BODY **SPRAY** MARKET, 2000

Spray	55	62	55
Stick	20	12	15
Roll-on	15	15	20
Cream	5	6	7

Men's	156.0	+6.8	45.17	+3.2
Spray	106.4	+3.1	30.89	+0.8
Stick/cream	35.1	+7.4	9.97	+0.1
Roll-on	14.6	+42.5	4.31	+35.2
Women's	206.9	+5.0	65.26	-1.3
Spray	130.3	+0.3	43.54	-4.8
Stick/cream	30.1	-5.1	8.51	-10.9
Roll-on	46.6	+31.3	13.21	+21.8
Unisex and wipes	13.9	+34.4	4.58	+31.3
Spray	8.8	+12.1	3.00	+10.1
Stick/cream/wipe	3.8	+92.6	1.24	+91.3
Roll-on	1.2	+158.8	0.38	+150.8
Total	376.9	+6.6	115.02	+1.4

Source: Industry estimates
FRANCE: MALE **AEROSOL** MARKET, 2001

But according to the annual report from the German **aerosol** production association, Industry Gemeinschaft Aerosole E.V. (IGA), aerosols had the upper hand in 2001. Aerosols' value market share was up. . .

Industry . . . in the first four months of 2002, up 3.5%, with Rexona (Lever Faberge/Unilever) the market leader. Nivea (Beiersdorf) led the **spray** and roll-on categories, where it held 18.8% and 20.1% shares respectively. Sticks and creams had Secret (Procter & Gamble) in. . .

In . . . the 8x4 and Nivea lines. "The deo compact is practical to take with you and lasts as long as a **spray**," she said. Another influential factor on the market, was the fact that the market is growing increasingly concentrated. "Small manufacturers. . .

According to Henkel's statistics, the leading brands for the **aerosol** segment are Fa (Henkel), Rexona, Axe (Lever Faberge/Unilever) and Nivea. The leader in the roll-on segment is Nivea, followed by. . .

Total market	537.9	535.3	0.48
Aerosol	226.1	217.9	3.76
Roll-on	102.0	101.9	0.14
Stick	67.5	75.9	-11.1
Spray	112.1	115.5	-2.9
Cream/gel	26.3	22.6	16.7

Source: **Aerosol** Report 2001, IGA
GERMANY: BRANDS AND VALUE MARKET SHARES AT END OF APRIL 2002

Aerosol	46.7	+3.5	Rexona
Spray	18.8	+0.1	Nivea

Roll-on	20.1	-0.3	Nivea
Sticks	9.3	-2.3	Secret
Cream	4.2	-1.2	Secret
Towel	0.3	-	Nivea

Four . . . market -- Dove, Rexona, Axe and Impulse -- and offers a complete range of products. We have particular strength in **spray** , pump and stick formats." The company has two brands in the top five: Dove, which takes third place in the. . .

Sensitive . . . trend earlier than its competitors," says Zanetti. "In Dove Sensitive, which was launched in February, we offer a lightly perfumed **spray** or a 100% fragrance-free roll-on variant. Dove Sensitive is the first hypo-**allergenic** deodorant with a special formula of 1/4 moisturising cream," he adds.

One . . . volume share of 41.1% in the 12 months to April 2002. Mirato has an internal plant for the production of **aerosol** products and is therefore historically the leader in the **spray** category, and Malizia Profumo d'Intesa swam against the tide in the perfumed deodorants segment to enjoy an impressive 10% boost. . . future of this segment could lie in the interpretation of such products as light perfumes, closer to the UK's body **spray** concept," and Mirato has responded accordingly. The company restyled and relaunched the Malizia Profumo d'Intesa onto the Italian market in. . .

"Brand . . . relaunching brands and broadening their ranges," says Zanetti. In January 2002, Lever Faberge launched Axe Dimension, available as deodorant body **spray** and after shave. The new addition to the Axe range has a base of spicy, oriental notes like sandalwood and. . .

The . . . Deodorant Fresh claims to have a formula and scent that guarantee a prolonged sensation of freshness. It is available in **spray** format, in a unisex scent and one for men, as a vaporiser and as deodorant wipes. Nivea Deodorant Dry claims to prevent the results of an intense sweat in a completely natural way. The Dry line is available in **spray**, cream, stick, roll-on, vaporiser and compact formats. Deodorant Sensitive is ideal for sensitive skins with its fragrance- and alcohol-free formulation. . .

Spray	39	-0.4
Pump	24	+4
Stick	20	+4

The **aerosol spray** format is the motor of this market, capturing more than 50% of sales and increasing its volume and value shares. . .

The most popular format for deodorants in Spain is the **aerosol spray**. In 2001, 42.2m units were sold for a total value of [euro]112m (Ptas 18.64bn). The top-selling aerosols were Axe, Rexona,. . . Market leader Axe is a product specifically targeted for men whereas Sanex, Rexona and Fa are for general use. The **aerosol** market is crowded, with over 20 brands sharing the remainder of the market.

Natural **Spray** sold 1.1m units and fell 2.8% over 2000. However, its value increased 18.4% to a total sale of [euro]6.1m (Ptas1.02bn).. . .

Aerosol	58.7	51.5
Roll-on	20.0	25.5
Stick	11.4	13.6
Cream	6.3	7.9
Natural **Spray**	3.2	1.3

Towelettes 0.05 0.6

Lynx . . . range, ahead of Lynx, Gillette's Right Guard, Soft And Gentle and Dove. In the women's body sprays market, Impulse Body **spray** from Lever Faberge is the top-ranking brand, followed by Charlie (Revlon), Boots Natural Collection, Tesco and Adidas Women's Body **spray** (Coty/Rockitt Benckiser).

The . . . and entered the British market for the first time in April 2002. The Nivea Deodorant range includes a roll-on and **aerosol** in both male and female variants but the company is particularly proud of an innovative and convenient compact **spray**. The Compact is pocket sized but is said to last as long as a standard 150ml **spray** . Nivea Deodorant Wipes, meanwhile, individually wrapped in sachets, are a new addition to the relatively new wipes segment in the. . .

Turning . . . sprays, available in the Dimension, Gravity, Africa, Phoenix, Voodoo and Atlantis fragrances. Dimension, available from January as a deodorant body **spray**, antiperspirant deodorant roll-on, deodorant stick, revitalising shower gel and after shave, was created by leading fragrance consultant Yves Cassar and. . .

Colgate-Palmolive has also been broadening its range with the launch of two new **aerosol** fragrances in the Palmolive Soft & Gentle range, both introduced in May 2002: Cool Mist and Peach Silk. According to. . .

Total	460.36	460.27	-
Women's body **spray**	48.72	49.13	
+0.8%			

Source: Taylor Nelson Sofres Superpanel.
UK: LEADING **AEROSOL** BRAND SHARES, 2002

Moongrass, a new fragrance, was introduced to the Impulse body **spray** range in January 2002. Described as "a cool, revitalising fragrance that delivers a blast of airy freshness, guaranteed to make. . .

However, the most significant launch in the body sprays market was Impulse Moisturising Body **Spray**, highlighting the appeal of extra benefits. Introduced in March 2002, Impulse Moisturising Body **Spray** is available in three variants -- Spirit, Air and O2. The new addition, which will be supported with a [pounds sterling]3m cinema and TV advertising campaign, is described as light and easily absorbed and comes in a pump action **spray**.

"There . . . comparison." P&G's Old Spice brand now includes residue-free products to appeal to younger consumers. The Old Spice Clear gel and **aerosol** were launched in February to meet the needs of men who prefer these formats. The Clear gel in particular is. . .

"Low . . . become increasingly important in the last few years," said Davis. "The active ingredient in the Clear gel is an improved **aluminum** zirconium salt. Other improvements have been made in terms of spreadability, which is critical to achieving wetness protection by covering. . .

Last . . . very pleased to be adding strength to our personal care product line, bringing it to the same level as our **household** products business," said Robert A. Davies III, chairman and ceo of Church & Dwight.

Church . . . building on the strength of its leading forms with new fragrance introductions. Bolstering Arrid's position as the No. 1

antiperspirant **spray**, the brand is introducing the Wild Breeze scent to the **aerosol** form and extending its Ultra Clear Solid line with a new Aqua Essence scent, targeted at both men and women.

TOM BRANNA is editor of Happi, (**Household** and Personal Products Industry), a US monthly trade magazine. Happi looks at the market for soaps and detergents, cosmetics and. . .

Manufacturers . . . brands on the Russian market. Consumers face as much advertising pressure from the deodorants sector as they do from the **household** detergents sector.

```
=> s l4 and (allergen)
L5          24 L4 AND (ALLERGEN)

=> rem dup l5
DUP IS NOT VALID HERE
The DELETE command is used to remove various items stored by the
system.

To delete a saved query, saved answer set, saved L-number list, SDI
request, batch request, mailing list, or user-defined cluster, format,
or search field, enter the name.  The name may include ?  for left,
right, or simultaneous left and right truncation.

Examples:

  DELETE BIO?/Q           - delete query names starting with BIO
  DELETE ?DRUG/A          - delete answer set names ending with DRUG
  DELETE ?ELEC?/L         - delete L-number lists containing ELEC
  DELETE ANTICOAG/S       - delete SDI request
  DELETE ENZYME/B         - delete batch request
  DELETE .MYCLUSTER       - delete user-defined cluster
  DELETE .MYFORMAT        - delete user-defined display format
  DELETE .MYFIELD         - delete user-defined search field
  DELETE NAMELIST MYLIST - delete mailing list

To delete an ordered document or an offline print, enter its
number.

Examples:

  DELETE P123001C         - delete print request
  DELETE D134002C         - delete document order request

To delete an individual L-number or range of L-numbers, enter the
L-number or L-number range.  You may also enter DELETE LAST followed
by a number, n, to delete the last n L-numbers.  RENUMBER or
NORENUMBER may also be explicitly specified to override the value of
SET RENUMBER.

Examples:

  DELETE L21              - delete a single L-number
  DELETE L3-L6            - delete a range of L-numbers
  DELETE LAST 4           - delete the last 4 L-numbers
  DELETE L33-             - delete L33 and any higher L-number
  DELETE -L55             - delete L55 and any lower L-number
  DELETE L2-L6 RENUMBER - delete a range of L-numbers and
                          renumber remaining L-numbers
  DELETE RENUMBER         - renumber L-numbers after deletion of
                          intermediate L-numbers
```

Entire sets of saved items, SDI requests, batch requests, user-defined items, or E-numbers can be deleted.

Examples:

```
  DELETE SAVED/Q - delete all saved queries
  DELETE SAVED/A - delete all saved answer sets
  DELETE SAVED/L - delete all saved L-number lists
  DELETE SAVED   - delete all saved queries, answer sets,
                   and L-number lists
  DELETE SAVED/S - delete all SDI requests
  DELETE SAVED/B - delete all batch requests
  DELETE CLUSTER - delete all user-defined clusters
  DELETE FORMAT  - delete all user-defined display formats
  DELETE FIELD   - delete all user-defined search fields
  DELETE SELECT  - delete all E-numbers
  DELETE HISTORY - delete all L-numbers and restart the
                   session at L1
```

To delete an entire multifile SDI request, enter DELETE and the name of the request. To delete a component from the multifile SDI, enter DELETE and the name of the component.

```
=> dup rem l5
DUPLICATE IS NOT AVAILABLE IN 'ADISINSIGHT, ADISNEWS, DGENE, DRUGLAUNCH,
DRUGMONOG2, KOSMET, MEDICONF, NUTRACEUT, PCTGEN, PHARMAML'.
ANSWERS FROM THESE FILES WILL BE CONSIDERED UNIQUE
PROCESSING COMPLETED FOR L5
L6            21 DUP REM L5 (3 DUPLICATES REMOVED)

=> d l6 ibib kwic 1-21

L6   ANSWER 1 OF 21  USPATFULL
ACCESSION NUMBER:         2003:86787  USPATFULL
TITLE:                    Method for imparting soil and stain resistance to
                          carpet
INVENTOR(S):              Chang, John C., New Brighton, MN, UNITED STATES
                          Deutsch, Robert F., Stillwater, MN, UNITED STATES

                               NUMBER        KIND    DATE
                          --------------- ------ --------
PATENT INFORMATION:       US 2003060395      A1   20030327
APPLICATION INFO.:        US 2001-865777     A1   20010525  (9)
DOCUMENT TYPE:            Utility
FILE SEGMENT:             APPLICATION
LEGAL REPRESENTATIVE:     3M INNOVATIVE PROPERTIES COMPANY, PO BOX 33427, ST.
                          PAUL, MN, 55133-3427
NUMBER OF CLAIMS:         62
EXEMPLARY CLAIM:          1
LINE COUNT:               1846
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI     Method for imparting soil and stain resistance to carpet
AB     A solventless cleaning and treating composition for carpet is
       described. The composition comprises an aqueous solution of a
       stainblocking polymer, a silsesquioxane anti-soiling polymer, a
       surfactant and optionally. . .
SUMM   [0001] This invention relates to new solventless cleaning and treating
       compositions for carpet. This invention also relates to a
       method for cleaning and treating carpet with these
       compositions to impart anti-soiling and stain release properties to the
       carpet.
SUMM   [0002] For many decades, carpet has been the floor covering of
       choice for improving both the aesthetics and comfort in residential
       homes and commercial buildings. Though very pleasing in appearance and
```

convenience when new, the **carpet** over time inevitably is susceptible to staining by foods and beverages and also discoloration due to soil pick-up a caused. . .

SUMM [0003] To minimize the effect of these assaults, various treatments have been applied to **carpet** either at the **carpet** mill or directly after installation (henceforth referred to as "early applied treatments"). Such early applied treatments include (a) fluoroaliphatic compounds. . . stains from fibers, and (c) various combinations thereof. However, though these early applied treatments may impart good initial protection to **carpet**, the ability of the treated **carpet** fibers to resist both soiling and staining gradually diminishes over time due to foot abrasion and soil and stain buildup. At this point, the **carpet** must be cleaned to restore its initial appearance. Unfortunately, during cycles of **carpet** cleaning and use, early applied treatments can become ineffective through contamination or may be removed from the **carpet**, leaving the **carpet** susceptible to accelerated discoloration from staining and soiling.

SUMM [0004] In order to maintain satisfactory stain and soil resistance of the **carpet** after cleaning (i.e., to bolster the resistance of the cleaned **carpet** to that of the early applied treated **carpet**), soil and stain resistant agents are normally applied to the cleaned **carpet** in a separate application step. This post-application is necessitated because of the incompatibility of the anti-soiling chemicals with the cleaning. . .

SUMM . . . process, anti-soiling and stainblocking agents must be compatible with cleaning detergents. Additionally, such agents must be quickly exhausted onto the **carpet** fibers under vacuuming condition, since the time window between contacting the **carpet** with the cleaning detergents and treating agents and removing such detergents and agents is extremely short. Vacuum application tends to extract the treating agents along with the dirty detergent-containing waste water, resulting in insufficient long-term **carpet** protection.

SUMM [0006] Despite these attempts, there continues to be a need an organic solvent-free **carpet** cleaning system that can simultaneously effectively clean **carpet** and provide long term anti-soiling and stainblocking protection to the cleaned **carpet**.

SUMM . . . to a method for cleaning a fibrous polyamide substrate and imparting superior soil and stain resistance properties to the cleaned **carpet** that includes (a) water extracting the substrate with an aqueous composition of this invention, and (b) vacuum removal of the. . .

SUMM . . . to a method for cleaning a fibrous polyamide substrate and imparting superior soil and stain resistance properties to the cleaned **carpet** that includes (a) water extracting the substrate with an aqueous composition of this invention, (b) vacuum removal of the composition. . .

SUMM [0010] The **carpet** cleaning and treating compositions of this invention may be used to effectively clean and treat soiled and stained **carpet** using a one step process, imparting superior anti-soiling and stainblocking properties to the cleaned **carpet**. This process can be employed with previously installed **carpet** or, alternatively, can be used in the **carpet** factory to clean and treat uninstalled, previously untreated **carpet**. The one step process described in this invention avoids the additional time and labor costs necessitated in a two-step cleaning. . . cleaner and treatment applied. This reduction in aqueous cleaner amount leads to two advantages: (1) it minimizes damage of the **carpet** due to water penetration and potential dimensional instability, and (2) it reduces the energy costs in the ovens required to dry the water. Although it is economically more desirable to clean and treat in one step, the **carpet** cleaning and treating compositions of this invention can be applied onto installed carpets before or after the **carpet**

is cleaned. Additionally, the **carpet** cleaning and treating compositions of this invention can be applied onto installed carpets cleaned with compositions other than those disclosed in this application. Furthermore, the **carpet** cleaning and treating compositions of this invention can be applied onto installed carpets that have not been previously imparted with. . .

SUMM [0011] Cleaning and treating **carpet** compositions of this invention can be utilized by **carpet** distributors and professional cleaners as well as by "do-it-yourself" consumers. The cleaning and treating compositions of this invention are shelf. . .

SUMM [0012] This invention relates to new solventless cleaning and treating compositions for **carpet**. This invention also relates to a method for cleaning and treating **carpet** with these compositions to impart anti-soiling and stain release properties to the **carpet**. In particular, the present invention is directed to aqueous compositions having a pH of at least 6 that include a. . .

SUMM . . . at least 0.1% SOF, more preferably at least 0.2% SOF, most preferably at least 0.4% SOF when treating nylon 6,6 **carpet** fiber. Generally, amounts of sulfonated aromatic polymer in excess of 2% SOF provide little added benefit. Preferably the amount of. . . at least 0.1% SOF, more preferably at least 0.2% SOF, most preferably at least 0.4% SOF when treating nylon 6,6 **carpet** fiber. Generally amounts of (.alpha.- and/or .beta.-substituted) acrylic acid polymer in excess of 2% SOF provide little added benefit. Preferably,. . . least 0.2% SOF, more preferably at least 0.4% SOF, based on the weight of the fiber when treating nylon 6 **carpet** fiber. Preferably, the amount of (.alpha.- and/or .beta.-substituted) acrylic acid polymer is at least 0.2 more, % SOF, preferably at least 0.4% SOF when treating nylon 6 **carpet** fiber.

SUMM . . . the anionic surfactant is compatible with the other elements of the composition, and provides detergency desired to clean a soiled **carpet**. Suitable anionic surfactant or surfactants can contain one or two hydrophobic groups and one or two water-solubilizing anionic groups.

SUMM [0090] The composition may optionally contain salts for improving the deposition of the stainblocking polymer onto the **carpet**. Useful salts include metal salts and ammonium salts. Suitable salts for use in the present invention include divalent metal salts. . . metal salts such as LiCl, NaCl, NaBr, NaI, KCl, CsCl, Li.sub.2SO.sub.4 and Na.sub.2SO.sub.4; polyvalent metal salts such as AlCl.sub.3 and **aluminum** citrate; and ammonium salts such as NH.sub.4Cl, (NH.sub.4).sub.2SO.sub.4, and (CH.sub.3).sub.4NCl. Divalent metal salts are generally preferred, with magnesium salts (e.g.,. . . salts. The salt is most effective when applied at levels of 0.1 to 3%, preferably 0.5 to 3%, solids on **carpet** in the cleaning and treating composition.

SUMM . . . above concentrate is combined with a sufficient amount of water to provide a solution that can be used with standard **carpet** cleaning equipment. In general, the aqueous use dilution can be prepared by diluting 1 to 2 parts by weight of. . .

SUMM [0098] In the method of the invention, a cleaning and treating composition of this invention can be applied to a **carpet** using cleaning methods known in the **carpet** cleaning art. A preferred method includes a water extraction step, wherein the temperature of the cleaning and treating composition during. . . composition after aqueous use dilution, is preferably at least 50.degree. C., and wherein the composition can be delivered to a **carpet** by employing a high pressure pump system. Following the water extraction step, the spent composition, i.e., the soiled aqueous use composition resulting after exposure to the **carpet**, can be subsequently removed from the **carpet** by employing a first vacuum removal step with a wet vacuum system. The 1st vacuum removal step can occur within. . . is desirable to minimize this exposure time to facilitate the removal of the cleaning and treating composition from the contacted **carpet**

fibers. One or more additional steps of hot water extraction followed by vacuum removal can be employed to further clean and treat the **carpet**. Removal of cleaning and treating composition residuals can be optimized by employing a water rinsing step followed by a second. . . most preferably within 10 seconds after the completion of the first vacuum removal step. Optimum cleaning and treating of the **carpet** can result by employing this sequence of a water extraction step, a first vacuum removal step, a water rinsing step. . . extraction step, vacuum removal step, water rinsing step, and second vacuum removal step, or a series or combination thereof, the **carpet** is allowed to dry. After the soiled **carpet** is cleaned with a cleaning and treating composition of this invention, the resulting cleaned **carpet** continues to exhibit at least a portion of, and usually a large extent of, the original stainblocking and soil resistance properties imparted by the original **carpet** treatment applied at the time of manufacture.

DETD [0107] FC-661--3M.TM. Stain Release Concentrate FX-661, a stainblocking polymer blend for **carpet** comprised of sulfonated phenolic and acrylic resins, available as a 29% solids aqueous emulsion from 3M Company, St. Paul, Minn.

DETD [0112] PM-1661--3M.TM. PM-1661 Protective Chemical, a 25% solids aqueous dispersion of a water-repellent **carpet** protector, available from 3M Company.

DETD [0113] TRANSITION III--TRANSITION III.TM. nylon 6,6 **carpet**, "Blue Moon" color, having a face weight of 36 oz/yd.sup.2 (1.2 kg/m.sup.2), available from Burlington Industries, Greensboro, N.C.

DETD [0114] QUEEN--SOLUTIA.TM. nylon 6,6 **carpet**, "Carolina Blue" color, having a face weight of 42 oz/yd.sup.2 (1.4 kg/m.sup.2), available from Queen **Carpet** Co., Dalton, Ga.

DETD [0116] Simulated Flex-Nip Application Procedure--The Simulated Flex-Nip Application Procedure described below was used to simulate the flex-nip operations used by **carpet** mills to apply stainblocking composition to **carpet**.

DETD [0117] In this test, a **carpet** sample measuring approximately 12 inches by 12 inches (30 cm.times.30 cm), typically weighing approximately 125 g, is immersed in deionized. . . a Bock Centrifugal Extractor (available from Bock Engineered Products, Inc., Toledo, Ohio) until the sample is damp. After extraction, the **carpet** sample is allowed to cool to near room temperature, and the aqueous treating composition is applied by placing the **carpet** sample, **carpet** fiber side down, in a glass tray containing the treating composition. The treating composition contains sufficient treating material(s) to give. . . acid. The weight of the treating solution present in the glass tray is approximately 4 times the weight of the **carpet** sample (e.g., 400 g of treating solution is used for a 100 g **carpet** sample). The **carpet** sample absorbs the entire volume of treating solution over a 1 to 2 minute period to give a percent wet. . .

DETD [0118] Then the wet treated **carpet** sample is steamed for 2 minutes at atmospheric pressure, at a temperature of 90-1 00.degree. C. and 100% relative humidity in an enclosed steam chamber. Following steaming, the **carpet** is spun to dampness using the centrifugal extractor and then is cured and dried in a forced air oven at. . .

DETD [0119] **Carpet** Cleaning Procedure--Cleaning/extraction of **carpet** samples was performed after application/curing step and before performance testing. The cleaning solutions were normally heated to around 50.degree. C.. . .

DETD [0120] To extract **carpet** samples, a BISSELL.TM. POWERSTEAMER.TM. ProHeat.TM. Plus steam cleaner (available from Bissell Homecare, Inc., Grand Rapids, Mich.) was employed using the. . .

DETD [0122] Step 2: The **carpet** sample is rotated 90 degrees and additional heated cleaning solution is applied in one slow forward and back pass followed. . .

DETD [0123] Step 3: The **carpet** sample is again rotated 90 degrees

and heated water solution is applied in one slow forward and back pass followed. . .

DETD [0124] Step 4: The **carpet** samples are allowed to dry in the lab hood over night under ambient conditions.

DETD [0125] Step 5: In some cases, one or two further extractions were performed on **carpet** samples when the experiment was designed to have more than one extraction (i.e., Steps 1-4 were repeated once or twice).

DETD [0126] **Spray** Re-treating Procedure--The aqueous treating solution is applied to the **carpet** sample via spraying to 15% by weight wet pickup, using a laboratory-sized sprayer. The wet sprayed **carpet** is then dried at 120.degree. C. in a forced air oven until dry (typically for 10-20 minutes). The application rate. . . cases FC-661 stainblocking polymer and Polymer A anti-soiling polymer were co-applied at 0.5% SOF and 0.1% SOF, respectively, during the **spray** re-treating procedure.

DETD [0127] "Walk-On" Soiling Test--The relative soiling potential of each treatment was determined by challenging both treated and untreated (control) **carpet** samples under defined "walk-on" soiling test conditions and comparing their relative soiling levels. The test is conducted by mounting treated and untreated **carpet** squares on particle board, placing the samples on the floor of one of two chosen commercial locations, and allowing the. . .

DETD [0128] Following the soil challenge period, the **carpet** samples are removed and the amount of soil present on a given sample is determined using colorometric measurements, making the. . .

DETD . . . advantages of higher precision, being unaffected by evaluation environment or subjective operator differences. The reported .DELTA.E value reported for each **carpet** sample is calculated as an average of between five and seven replicates. A larger .DELTA.E value indicates greater soiling.

DETD [0134] A treated 10 cm.times.10 cm **carpet** sample is stained for 24 hours by contacting the **carpet** sample in an aqueous solution of 0.007% (wt) of Red Dye FD&C #40 in deionized water adjusted to a pH of 2.8-3.2 with aqueous acid. The treated and stained **carpet** sample is rinsed under a stream of water until the wash water runs clear. The wet **carpet** sample is then extracted to dampness using a Bock Centrifugal Extractor and is air-dried overnight at room temperature.

DETD [0135] The degree of staining of the **carpet** sample is determined numerically by using a 310 CHROMA METER.TM. compact tristimulus color analyzer (available from Minolta, The color analyzer. . . the red-green color coordinate as a "delta a" (.DELTA.a) value as compared to the color of an unstained and untreated **carpet** sample. Measurements reported in the tables below are given to one place following the decimal point and represent the average. . .

DETD [0137] Several series of cleaning/treating concentrate solutions were formulated for later evaluation as **carpet** cleaners and protectors. The pH of all concentrate solutions evaluated was around 6. In some cases, no pH adjustment was. . .

DETD [0139] The second series of cleaning/treating solutions, CTS-D through CTS-H, was based on a commercially available **carpet** cleaning solution (CS-2), BISSELL.TM. Fiber Cleansing Formula **Carpet** Detergent (available from Bissell, Inc., Grand Rapids, Mich.), which is believed to contain proprietary hydrocarbon surfactants and sequestering agents. The. . . each anti-soiling polymer and stainblocking polymer added to the Bissell cleaning solution. Also included in TABLE 2 is a proprietary **carpet** cleaning solution available from Bissell (CS-2A) believed to be the CS-2 **carpet** cleaning solution containing a proprietary anti-soiler.

TABLE 2

Percent in CS-2:

Component:	CS-2. . .	CS-	CTS-	CTS-	CTS-	CTS-	CTS-

DETD [0140] The third cleaning/treating solution, CTS-I, was based on another commercially available **carpet** cleaning solution (CS-3), BISSELL.TM. Fiber Cleansing Formula (Multi-**Allergen** Removal) **Carpet** Detergent (available from Bissell, Inc.), which is believed to contain proprietary hydrocarbon surfactants and sequestering agents. The composition of the. . .

DETD [0141] The fourth cleaning/treating solution, CTS-J, was based on another commercially TM available **carpet** cleaning formulation (CS-4), P.C.A..TM. Powered Cleaning Agent Formula 5, a **carpet** cleaner that is available from Bane-Clene Corp., Indianapolis, Ind. The composition of each solution evaluated in this fourth series is. . .

DETD [0142] **Carpet** Test Samples

DETD [0143] Five different **carpet** test samples, **Carpet** 1, **Carpet** 2, **Carpet** 3, **Carpet** 4 and **Carpet** 5, were prepared for evaluation of the cleaning/treating solution candidates. Four carpets were treated and one was untreated prior to. . .

DETD [0144] **Carpet** 1--TRANSITION.TM. III nylon 6,6 **carpet** treated with FC-661 stainblocking polymer at 0.5% SOF and Polymer A antisoiling polymer at 0.1% SOF using the Simulated Flex-Nip. . .

DETD [0145] **Carpet** 2--TRANSITION.TM. III nylon 6,6 **carpet** treated with SR-500 stainblocking polymer at 0.5% SOF and Polymer A antisoiling polymer at 0.1% SOF using the Simulated Flex-Nip. . .

DETD [0146] **Carpet** 3--TRANSITION.TM. III nylon 6,6 **carpet** treated with FC-661 stainblocking polymer at 0.5% SOF, Polymer A antisoiling polymer at 0.075% SOF and PM-1661 **carpet** protector at 0.025% SOF using the Simulated Flex-Nip Application Procedure. The aqueous treating solution also contained 2.78% of a 10%. . .

DETD [0147] **Carpet** 4--Untreated TRANSITION.TM. III nylon 6,6 **carpet**.

DETD [0148] **Carpet** 5--QUEEN.TM. nylon 6,6 **carpet** treated with FC-661 stainblocking polymer at 0.5% SOF and Polymer A antisoiling polymer at 0.1% SOF using the Simulated Flex-Nip. . .

DETD [0149] In this evaluation series, CTS-A, CTS-B and CTS-C, laboratory-formulated cleaning/treating solutions of this invention were compared to laboratory-formulated **carpet** cleaning solution CS--I in their ability to render treated nylon 6,6 carpets more resistant to walk-on soiling and staining after. . .

DETD [0151] **Carpet** 1: FC-661 stainblocking polymer at 0.5% SOF, Polymer A anti-soiling polymer at 0.1% SOF

DETD [0152] **Carpet** 2: SR-500 stainblocking polymer at 0.5% SOF, Polymer A anti-soiling polymer at 0.1% SOF

DETD [0153] **Carpet** 3: FC-661 stainblocking polymer at 0.5% SOF, Polymer A anti-soiling polymer at 0.075% SOF, PM-1661 **carpet** protector at 0.025% SOF

DETD [0154] **Carpet** 4: Untreated TRANSITIONrm III **carpet**

DETD [0155] Using the **Carpet** Cleaning Procedure, the number of cleaning/extraction cycles was varied between zero and two. For Example 3 and Comparative Example C4, the clean/extracted **carpet** samples were re-treated with a combination of FC-661 stainblocking polymer and Polymer A anti-soiling polymer using the **Spray** Re-treatment Procedure. After cleaning/extraction and optional re-treating, all **carpet** samples were evaluated for soil resistance using the "Walk-On Soiling Test" and for stain resistance using the Stain Resistance Test. For Comparative Examples C1, C5, C7 and C10, the **carpet** was evaluated in its original condition, i.e., the **carpet** was not cleaned prior to evaluation.

DETD . . . the second test series are followed with a superscript 2.

TABLE 5

Stain

Ex.	**Carpet**	Clean/ Treat Solution	# Cleaning/ Extr. Cycles	**Spray** Re-treat.?	Walk-On Soiling, .DELTA.E	Resis- tance, .DELTA.a
C1	1	None	0	No	3.8.sup.1, 3.7.sup.2	2.4.sup.1, 3.3.sup.2
C2	1	CS-1	1	No	8.1.sup.1, 5.7.sup.2.	26.4.sup.1, . . .

DETD [0157] The data in TABLE 5 illustrate the advantage of this invention. For all **carpet** samples, those cleaned with cleaning/treating solutions, i.e., those cleaning solutions additionally containing a combination of antisoiling polymer (Polymer A) and. . . B, FC-661 or SR-500) (i.e., CTS-A, CTS-B or CTS-C) exhibited improved soiling and stain resistance when compared to the same **carpet** samples cleaned with the same cleaning solution without these polymers (CS-1). This improved resistance to soiling and staining was most pronounced with treated **carpet** samples (Carpets 1, 2 and 3), but cleaning of the untreated **carpet** sample (**Carpet** 4) with cleaning/treating solution CTS-A also imparted some soil and stain resistance. **Spray** treatment of combinations of anti-soiling polymers and stainblocking polymers to **carpet** samples previously cleaned with either a cleaning/treating solution of this invention or a known cleaning solution further improved soil and stain resistance. Comparing the results from Example 2 vs. Example 3 illustrates the benefit in using a **spray** application of Polymer A and FC-661 as an additional step after cleaning.

DETD . . . and improved stainblocking performance imparted by treatments of this invention following such an extremely short contact time between polymers and **carpet** samples, as vacuum extraction is performed almost immediately applied after contact of the cleaning/treating solution.

DETD [0159] In this evaluation series, CTS-D and CTS-H cleaning/treating solutions, formulated from BISSELL.TM. Fiber Cleansing Formula **Carpet** Detergent (CS-E), were compared to CS-2 cleaning solution in their ability to render treated nylon 6,6 carpets more resistant to. . .

DETD [0161] **Carpet** 1: FC-661 stainblocking polymer at 0.5% SOF, Polymer A anti-soiling polymer at 0.1% SOF

DETD [0162] **Carpet** 2: SR-500 stainblocking polymer at 0.5% SOF, Polymer A anti-soiling polymer at 0.1% SOF

DETD [0163] **Carpet** 3: FC-661 stainblocking polymer at 0.5% SOF, Polymer A anti-soiling polymer at 0.075% SOF, PM-1661 **carpet** protector at 0.025% SOF

DETD [0164] Using the **Carpet** Cleaning Procedure, the number of cleaning/extraction cycles was varied between zero and two. After cleaning/extraction, all **carpet** samples were evaluated for soil resistance using the "Walk-On Soiling Test" and for stain resistance using the Stain Resistance Test. For Comparative Examples C1, C5 and C7, the **carpet** was evaluated in its original condition, i.e., the **carpet** was not cleaned prior to evaluation.

DETD . . . the second test series are followed with a superscript 2.

TABLE 6

Ex.	**Carpet**	Clean/ Treat Solution	# Cleaning/ Extr. Cycles	Walk-On Soiling, .DELTA.E	Stain Resistance, .DELTA.a
C1	1	None	0	3.8.sup.1	2.4.sup.1
C11	1	CS-2	1	9.0.sup.1	9.5.sup.1

C12 1 CS-2 2 9.3.sup.1. . .

DETD [0166] The data in TABLE 6 further illustrate the advantage of this invention. For all **carpet** samples, those cleaned with cleaning/treating solutions, i.e., those cleaning solutions containing a combination of antisoiling polymer and stainblocking polymer (i.e., CTS-D and CTS-H) exhibited improved soiling and stain resistance when compared to the same **carpet** samples cleaned with the same cleaning solution without these polymers (CS-2).

DETD [0167] In this evaluation series, CTS-I cleaning/treating solution, formulated from BISSELL.TM. Fiber Cleansing Formula (Multi-**Allergen** Removal) **Carpet** Detergent (CS-3), was compared to CS-3 cleaning solution in its ability to render treated TRANSITIONM nylon 6,6 **carpet** (i.e., **Carpet** 3) samples more resistant to walk-on soiling and staining after cleaning. (See TABLE 3 for formulations of the solutions.)

DETD [0168] Using the **Carpet** Cleaning Procedure, the number of cleaning/extraction cycles was varied between zero and two. After cleaning/extraction, all **carpet** samples were evaluated for soil resistance using the "Walk-On Soiling Test" and for stain resistance using the Stain Resistance Test. For Comparative Example C7, the **carpet** was evaluated in its original condition, i.e., the **carpet** was not cleaned prior to evaluation.

DETD . . . two test series so are followed with a superscript 2.

TABLE 7

Ex.	**Carpet** Resistance, .DELTA.a	Clean/ Treat Solution	# Cleaning/ Extr. Cycles	Walk-On Soiling, .DELTA.E	Stain
C7	3	None	0	4.1.sup.2	1.32
C15	3	CS-3	1	5.2.sup.2	19.5.sup.2
C16	3	CS-3	2	5.4.sup.2. . .	

DETD . . . this invention, showing that cleaning/treating solution CTS-I outperformed cleaning solution CS-3 in imparting soil and stain resistance to the cleaned **carpet**.

DETD . . . Agent Formula 5 (CS-4), was compared to CS-4 cleaning solution in its ability to render treated TRANSITION.TM. III nylon 6,6 **carpet** (i.e., **Carpet** 1) samples more resistant to walk-on soiling and staining after cleaning. (See TABLE 4 for formulations of the solutions.)

DETD [0172] Using the **Carpet** Cleaning Procedure, the number of cleaning/extraction cycles was either zero or three. After cleaning/extraction, all **carpet** samples were evaluated for soil resistance using the "Walk-On Soiling Test" and for stain resistance using the Stain Resistance Test. For Comparative Example C1, the **carpet** was evaluated in its original condition, i.e., the **carpet** was not cleaned prior to evaluation.

DETD . . . two test series so are followed with a superscript 1.

TABLE 8

Ex.	**Carpet** Resistance, .DELTA.a	Clean/ Treat Solution	# Cleaning/ Extr. Cycles	Walk-On Soiling, .DELTA.E	Stain
C1	1	None	0	3.8.sup.1	2.4.sup.1
C17	1	CS-4	3	6.2.sup.1	26.8.sup.1
18	1	CTS-J	3	4.9.sup.1. . .	

DETD . . . this invention, showing that cleaning/treating solution CTS-J

outperformed cleaning solution CS-4 in imparting soil and stain resistance to the cleaned **carpet**.

DETD [0175] In Examples 19-21, BISSELL.TM. Fiber Cleansing Formula **Carpet** Detergent (CS-2) containing Polymer A anti-soiling polymer and Polymer B stainblocking polymer at varying weight ratios (approximately 4:4, 3:5 and 2:6 for CST-E, CST-F and CST-G, respectively) but at approximately the same total solids level was used to clean/treat **Carpet** 5 (i.e., QUEEN.TM. nylon 6,6 **carpet**) samples using the **Carpet** Cleaning Procedure and employing two cleaning/extraction cycles. (See TABLE 2 for formulations of the cleaning/treating solutions.) After cleaning/extraction, all **carpet** samples were evaluated for soil resistance using the "Walk-On Soiling Test" and for stain resistance using the Stain Resistance Test.

DETD [0176] In Comparative Example C18, the same procedure was followed as in Examples 19-21 except that CS-2A **carpet** detergent was used (i.e., CS-2 detergent containing a proprietary anti-soiler).

DETD [0177] In Comparative Example C19, the **carpet** was not cleaned and/or cleaned/treated prior to the soil resistance and stain resistance evaluations.

DETD . . . TABLE 9.

TABLE 9

Ex.	**Carpet** .DELTA.a	Clean/ Treat Solution	% solids in CS-E: Polymer A	Polymer B	Total (ratio)	Walk-On Soiling, .DELTA.E	Stain Resistance,
19	5	CTS-E	1.22	1.22	2.44 (4:4)	8.91	0.75
20	5	CTS-F	0.92	1.63	2.55	8.79. . .	

DETD [0179] The data in TABLE 9 show that the **carpet** detergent containing 4:4, 3:5 and 2:6 ratios of Polymer A to Polymer B all performed comparably in imparting both soil resistance and stain resistance to the **carpet**. This indicates that good performance was achieved using a wide variety of component ratios in the detergent, so that performance was fairly insensitive to component ratio. All three cleaning/treating compositions of this invention outperformed the **carpet** detergent containing the proprietary anti-soiler and approached the performance exhibited by the **carpet** that was not cleaned before testing.

CLM What is claimed is:

59. The method of claim 30, wherein the substrate is **carpet**.

60. The method of claim 59, wherein the substrate comprises nylon **carpet**.

L6 ANSWER 2 OF 21 USPATFULL

ACCESSION NUMBER: 2003:78448 USPATFULL
TITLE: Nucleic acids, proteins and antibodies
INVENTOR(S): Rosen, Craig A., Laytonsville, MD, UNITED STATES
Ruben, Steven M., Olney, MD, UNITED STATES
Barash, Steven C., Rockville, MD, UNITED STATES
PATENT ASSIGNEE(S): Human Genome Sciences, Inc., Rockville, MD, UNITED STATES, 20850 (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003054368	A1	20030320
APPLICATION INFO.:	US 2002-79854	A1	20020222 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2001-764878, filed on 17

Jan 2001, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-179065P	20000131 (60)
	US 2000-180628P	20000204 (60)
	US 2000-214886P	20000628 (60)
	US 2000-217487P	20000711 (60)
	US 2000-225758P	20000814 (60)
	US 2000-220963P	20000726 (60)
	US 2000-217496P	20000711 (60)
	US 2000-225447P	20000814 (60)
	US 2000-218290P	20000714 (60)
	US 2000-225757P	20000814 (60)
	US 2000-226868P	20000822 (60)
	US 2000-216647P	20000707 (60)
	US 2000-225267P	20000814 (60)
	US 2000-216880P	20000707 (60)
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	US 2000-251869P	20001208 (60)
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	US 2000-236369P	20000929 (60)
	US 2000-224519P	20000814 (60)
	US 2000-220964P	20000726 (60)
	US 2000-241809P	20001020 (60)
	US 2000-249299P	20001117 (60)
	US 2000-236327P	20000929 (60)
	US 2000-241785P	20001020 (60)
	US 2000-244617P	20001101 (60)
	US 2000-225268P	20000814 (60)
	US 2000-236368P	20000929 (60)
	US 2000-251856P	20001208 (60)
	US 2000-251868P	20001208 (60)
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	US 2000-227009P	20000823 (60)
	US 2000-235484P	20000926 (60)
	US 2000-190076P	20000317 (60)
	US 2000-209467P	20000607 (60)
	US 2000-205515P	20000519 (60)
	US 2001-259678P	20010105 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850	
NUMBER OF CLAIMS:	24	
EXEMPLARY CLAIM:	1	
LINE COUNT:	19483	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . the area. Mast cells can be triggered to release these substances in response to something they recognize as foreign (an **allergen**), such as pollen, house dust mites, or animal dander. However, asthma is also common and severe in many people without. . .

SUMM . . . depending on the host species, and include but are not limited to, Freund's (complete and incomplete), mineral gels such as **aluminum** hydroxide, surface active substances such as lysolecithin, pluronic polyols, polyanions, peptides, oil emulsions, keyhole limpet hemocyanins, dinitrophenol, and potentially useful. . .

SUMM . . . injection into the interstitial space of tissues. However, other parenteral routes may also be used, such as, inhalation of an **aerosol** formulation particularly for delivery to lungs or bronchial tissues, throat or mucous membranes of the nose. In addition, naked DNA. . .

SUMM [0480] Preferred methods of systemic administration, include intravenous injection, **aerosol**, oral and percutaneous (topical) delivery. Intravenous injections can be performed using methods standard in the art. **Aerosol** delivery can also be performed using methods standard in the art (see, for example, Stribling et al., Proc. Natl. Acad.. . .

SUMM . . . lung injury, inflammatory bowel disease, Crohn's disease, over production of cytokines (e.g., TNF or IL-1.), respiratory disorders (e.g., asthma and **allergy**); gastrointestinal disorders (e.g., inflammatory bowel disease); cancers (e.g., gastric, ovarian, lung, bladder, liver, and breast); CNS disorders (e.g., multiple sclerosis;. . .

SUMM . . . depots, other commercially available depot materials, osmotic pumps, oral or suppositorial solid pharmaceutical formulations, decanting or topical applications during surgery, **aerosol** delivery. Such methods are known in the art. Polypeptides may be administered as part of a Therapeutic, described in more. . .

SUMM . . . depots, other commercially available depot materials, osmotic pumps, oral or suppositorial solid pharmaceutical formulations, decanting or topical applications during surgery, **aerosol** delivery. Such methods are known in the art. Polypeptides may be administered as part of a Therapeutic, described in more. . .

SUMM . . . surgical procedures. For example, within one aspect of the present invention a compositions (in the form of, for example, a **spray** or film) may be utilized to coat or **spray** an area prior to removal of a tumor, in order to isolate normal surrounding tissues from malignant tissue, and/or to. . . spread of disease to surrounding tissues. Within other aspects of the present invention, compositions (e.g., in the form of a **spray**) may be delivered via endoscopic procedures in order to coat tumors, or inhibit

angiogenesis in a desired locale. Within yet. . .

SUMM . . . depots, other commercially available depot materials, osmotic pumps, oral or suppositorial solid pharmaceutical formulations, decanting or topical applications during surgery, **aerosol** delivery. Such methods are known in the art. Polypeptides may be administered as part of a Therapeutic, described in more. . .

DETD . . . intracistemally, intravaginally, intraperitoneally, topically (as by powders, ointments, gels, drops or transdermal patch), bucally, or as an oral or nasal **spray**. "Pharmaceutically acceptable carrier" refers to a non-toxic solid, semisolid or liquid filler, diluent, encapsulating material or formulation auxiliary of any.. . .

DETD . . . intracistemally, intravaginally, intraperitoneally, topically (as by powders, ointments, gels, drops or transdermal patch), bucally, or as an oral or nasal **spray**. "Pharmaceutically acceptable carrier" refers to a non-toxic solid, semisolid or liquid filler, diluent, encapsulating material or formulation auxiliary of any. . .

DETD . . . with the Therapeutics of the invention include, but are not limited to, Monophosphoryl lipid immunomodulator, AdjuVax 100a, QS-21, QS-18, CRL1005, **Aluminum** salts, MF-59, and Virosomal adjuvant technology. Vaccines that may be administered with the Therapeutics of the invention include, but are. . .

DETD . . . injection into the interstitial space of tissues. However, other parenteral routes may also be used, such as, inhalation of an **aerosol** formulation particularly for delivery to lungs or bronchial tissues, throat or mucous membranes of the nose. In addition, naked polynucleotide. . .

DETD [1190] To avoid infection, animals are housed individually with mesh (no **bedding**). Recovering animals are checked daily through the optimal edematous peak, which typically occurred by day 5-7. The plateau edematous peak. . .

L6 ANSWER 3 OF 21 USPATFULL

ACCESSION NUMBER: 2003:17051 USPATFULL

TITLE: **Allergen** absorbent, blocking, and deactivating compositions and method

INVENTOR(S): Beall, Gary W., Ferguson, MO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003012800	A1	20030116
APPLICATION INFO.:	US 2001-867813	A1	20010530 (9)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MARSHALL, GERSTEIN & BORUN, 6300 SEARS TOWER, 233 SOUTH WACKER, CHICAGO, IL, 60606-6357

NUMBER OF CLAIMS: 25

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 6 Drawing Page(s)

LINE COUNT: 545

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI **Allergen** absorbent, blocking, and deactivating compositions and method

AB An **allergen** and blocking sorbent for topical application to the skin comprising a surface-modified layered material, such as an intercalated clay, dispersed. . . skin to absorb or adsorb (hereinafter "sorb" or "sorbent") via intercalation between spaced layers of the layered material, and block **allergenic** organic compounds from plants such as poison ivy, poison oak, and poison sumac, thus preventing skin rashes.

SUMM [0001] An **allergen** and blocking sorbent for topical application to the skin comprising a surface-modified layered material, such as an intercalated clay, dispersed. . . skin to absorb and/or adsorb (hereinafter "sorb" or "sorbent") via intercalation between spaced layers of the layered material, and block **allergenic**

organic compounds from plants such as poison ivy, poison oak, and poison sumac, thus preventing skin rashes.

SUMM [0002] This invention relates to an **allergen** sorbent and blocking composition and method for topical application to the skin to prevent or alleviate allergic skin reactions and. . .

SUMM [0008] Strangely, however, the **allergen** urushiol does not appear to affect animals and **household** pets. Cats and dogs can be exposed and actually play in the area without being affected, but can infect their. . .

SUMM . . . such as silica gel, alumina and activated charcoal. Additionally, he saturated samples of cloth and mordanted them with salts of **aluminum**, copper and chromium.

SUMM . . . work and tested a wide variety of agents, including Sure.RTM. antiperspirant and Drysol TM, both of which contain the antiperspirant **aluminum** chlorohydrate. The Sure.RTM. antiperspirant, in the **spray** form, contains **aluminum** chlorohydrate, cyclomethicone, quaternium-18 hectorite, perfume, ethanol, isobutane and propane. This composition is reported from 1 to 5% quaternium-18 hectorite, an. . .

SUMM [0020] In 1989 Powell et al. patented an **aerosol** composition of organophilic clay dispersed in a cosmetically acceptable solvent (U.S. Pat. No. 4,861,584). This composition suffers from several drawbacks. . .

DETD [0038] The manufacture of the **allergen** sorbent of the present invention is easily accomplished by mixing the surface modifier, e.g., DDP, directly with the clay in. . . leaves a substantial amount of by-product salt in the finished organoclay. This salt leads to corrosion of processing equipment and **aerosol** containers used for packaging. The process for making the **allergen** sorbent of the present invention produces essentially no by-products that remain in the resulting surface-modified clay.

DETD . . . surface modified clay in a dispersion or gel can be applied to the skin as a salve or as an **aerosol spray**. When applying to the skin, the optimum results are obtained by rubbing the sorbent composition topically onto the skin. The. . .

CLM What is claimed is:

1. An **allergen** sorbent composition comprising a smectite clay having a cation exchange capacity of at least 75 meq./100 grams of clay, intercalated. . .

10. A method for protecting skin from contact with an **allergen** comprising topically applying to the skin the composition of claim 1.

12. The method of claim 10, wherein the **allergen** sorbent composition is applied as a salve.

13. The method of claim 10, wherein the gel is applied as an **aerosol spray**.

14. The method of claim 10, wherein the composition is applied to a substrate selected from the group consisting of clothing, shoes, and pets to deactivate an **allergen** sorbed thereon.

23. A method deactivating an **allergen** and reducing the severity of an allergic reaction caused by contact of the **allergen** with human skin comprising applying the composition of claim 1 to the skin of an individual after exposure to said **allergen**.

24. A method deactivating an **allergen** and reducing the severity of an allergic reaction caused by contact of the **allergen** with human skin comprising applying the composition of claim 1 to the clothes of an individual after exposure to said **allergen**.

L6 ANSWER 4 OF 21 CAPLUS COPYRIGHT 2003 ACS DUPLICATE 1
ACCESSION NUMBER: 2002:615415 CAPLUS
DOCUMENT NUMBER: 137:159356
TITLE: **Allergen** neutralization compositions containing **aluminum** ions
INVENTOR(S): Yoshikawa, Akikazu; Chatterjee, Ranjit; Kobayashi, Ryoko
PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002062354	A1	20020815	WO 2001-US4070	20010208
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2002150540	A1	20021017	US 2002-71599	20020208

PRIORITY APPLN. INFO.: WO 2001-US4070 A1 20010208
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI **Allergen** neutralization compositions containing **aluminum** ions

AB **Allergen** neutralization compns. for use on **inanimate** objects contain an effective amt. of an **allergy** neutralizing **aluminum** ion, and a solvent. The **allergen** neutralization compns. are **sprayable**, and 60%, by wt. of the **aluminum** ion is provided as a salt of an anion selected from the group consisting of sulfate, chloride, nitrite, potassium sulfate and mixts. thereof. The compn. preferably contains essentially no **aluminum** chlorohydarate, and may contain addnl. **allergen** denaturing compds. such as polyphenol compds., hydrogen peroxide, salicylic acid, citric acid, lactic acid, glycolic acid, addnl. metal ions and mixts. of these. Other optional ingredients include film forming polymers to control the **allergen** contg. dust. These **allergen** neutralization compns. provide excellent efficacy against various allergens, and specifically, the allergens assocd. with house dust mites and other common allergens such as cat dander, pollen and the like. Moreover, these compns. do not stain common **household** surfaces. Thus, a compn. contained Al2(SO4)3 3.0, **aluminum** ion 0.5, tannin 0.05, buffer 0.05, diethylene glycol 0.4, wetting agent 0.05, EtOH 3.0, and water balance to 100%.

ST **allergen** neutralization **aluminum**

IT Mite and Tick
Solvents
Wetting agents
(**allergen** neutralization compns. contg. **aluminum** ions)

IT Allergens
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(**allergen** neutralization compns. contg. **aluminum** ions)

IT Polymers, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**allergen** neutralization compns. contg. **aluminum** ions)

IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**allergen** neutralization compns. contg. **aluminum** ions)

IT Polyoxyalkylenes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(di-Me, Me hydrogen polysiloxane-; **allergen** neutralization compns. contg. **aluminum** ions)

IT Polysiloxanes, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(di-Me, Me hydrogen, polyoxyalkylene-; **allergen** neutralization compns. contg. **aluminum** ions)

IT Alcohols, uses
RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(lower; **allergen** neutralization compns. contg. **aluminum** ions)

IT Phenols, biological studies
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polyphenols, nonpolymeric; **allergen** neutralization compns. contg. **aluminum** ions)

IT 50-21-5, Lactic acid, biological studies 50-81-7, Ascorbic acid, biological studies 69-72-7, Salicylic acid, biological studies 77-92-9, Citric acid, biological studies 79-14-1, Glycolic acid, biological studies 149-91-7, Gallic acid, biological studies 526-95-4, Gluconic acid 7439-95-4, Magnesium, biological studies 7440-02-0, Nickel, biological studies 7440-32-6, Titanium, biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 7446-70-0, **Aluminum** chloride, biological studies 7722-84-1, Hydrogen peroxide, biological studies 7784-13-6, **Aluminum** chloride hexahydrate 9002-89-5, Poly(vinyl alcohol) 9003-01-4, Poly(acrylic acid) 9003-39-8, PVP 9004-67-5, Methyl cellulose 9004-67-5D, Methyl cellulose, derivs. 9005-25-8, Starch, biological studies 10043-01-3, **Aluminum** sulfate 10043-67-1, **Aluminum** potassium sulfate 13473-90-0, **Aluminum** nitrate 14047-62-2, Nitrous acid, **aluminum** salt 18917-91-4, **Aluminum** lactate 22537-50-4, Stannic ion, biological studies 22541-90-8, Stannous ion, biological studies 25322-68-3, Polyethylene glycol 25322-69-4, Polypropylene glycol
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**allergen** neutralization compns. contg. **aluminum** ions)

L6 ANSWER 5 OF 21 IFIPAT COPYRIGHT 2003 IFI DUPLICATE 2

AN 10206833 IFIPAT;IFIUDB;IFICDB

TITLE: **ALLERGEN** NEUTRALIZATION COMPOSITIONS CONTAINING **ALUMINUM** IONS

INVENTOR(S): Chatterjee; Ranjit, Higashinada-ku, JP
Kobayashi; Ryoko, Higashinada-ku, JP
Yoshikawa; Akikazu, Higashinada-ku, JP

PATENT ASSIGNEE(S): Unassigned

AGENT: THE PROCTER & GAMBLE COMPANY INTELLECTUAL PROPERTY DIVISION, WINTON HILL TECHNICAL CENTER-BOX 161, 6110 CENTER HILL AVENUE, CINCINNATI, OH, 45224, US

	NUMBER	PK	DATE
PATENT INFORMATION:	US 2002150540	A1	20021017
APPLICATION INFORMATION:	US 2002-71599		20020208
FAMILY INFORMATION:	US 2002150540		20021017

DOCUMENT TYPE: Utility

Patent Application - First Publication
FILE SEGMENT: CHEMICAL
APPLICATION
NUMBER OF CLAIMS: 20

TI **ALLERGEN** NEUTRALIZATION COMPOSITIONS CONTAINING **ALUMINUM** IONS

AB **Allergen** neutralization compositions for use on **inanimate** objects having an effective amount of an **allergy** neutralizing **aluminum** ion, and a solvent. The **allergen** neutralization compositions are **sprayable**, and at least about 60%, by weight of the **aluminum** ion is provided as a salt of an anion selected from the group consisting of sulfate, chloride, nitrite, potassium sulfate and mixtures thereof. The composition preferably contains essentially no **aluminum** chlorohydarate, and may contain additional **allergen** denaturing compounds such as polyphenol compounds, hydrogen peroxide, salicylic acid, citric acid, lactic acid, glycolic acid, additional metal ions and mixtures of these. Other optional ingredients include film forming polymers to control the **allergen** containing dust. These **allergen** neutralization compositions provide excellent efficacy against various allergens, and specifically, the allergens associated with house dust mites and other common allergens such as cat dander, pollen and the like. Moreover, these compositions do not stain common **household** surfaces.

ECLM 1. An **allergen** neutralization composition for use on **inanimate** objects, the composition comprising: an effective amount of an **allergy** neutralizing **aluminum** ion; and a solvent; wherein the **allergen** neutralization composition is **sprayable** and wherein at least about 60% by weight of the **aluminum** ion is provided as a salt of an anion selected from the group consisting of sulfate, chloride, nitrite, potassium sulfate. . .

ACLM 2. The **allergen** neutralization composition of claim 1, wherein at least about 70% by weight of the **aluminum** ion is provided as a salt of an anion selected from the group consisting of sulfate, chloride, nitrite, potassium sulfate. . .

3. The **allergen** neutralization composition of claim 1, wherein the composition comprises essentially no **aluminum** chlorohydarate.

4. The **allergen** neutralization composition of claim 1, wherein less than 10% by weight of the **aluminum** ion is provided as **aluminum** chlorohydrate.

5. The **allergen** neutralization composition of claim 4, wherein less than 5% by weight of the **aluminum** ion is provided as **aluminum** chlorohydrate.

6. The **allergen** neutralization composition of claim 1, comprising film forming polymers selected from the group consisting of starch, polyvinyl alcohols, methyl cellulose. . .

7. The **allergen** neutralization composition of claim 6, wherein the film forming polymers are present at about 0.001% to about 20%, by weight, of the **allergen** neutralization composition.

8. The **allergen** neutralization composition of claim 7, wherein the film forming polymers are present at about 0.01% to about 10%, by weight, of the **allergen** neutralization composition.

9. The **allergen** neutralization composition of claim 1, further comprising additional **allergen** denaturing compounds selected from the group consisting of polyphenol compounds, hydrogen peroxide, salicylic acid, citric acid, lactic acid, glycolic acid,. . .

10. The **allergen** neutralization composition of claim 1, wherein the composition neutralizes at least about 50% of **allergen** containing proteins as measured by the ELISA test protocol.

11. The **allergen** neutralization composition of claim 10, wherein the composition neutralizes at least about 60% of **allergen** containing proteins as measured by the ELISA test protocol.

12. The **allergen** neutralization composition of claim 1, further comprising a wetting agent.

13. The **allergen** neutralization composition of claim 9, wherein the additional metal ions are selected from the group consisting of ions of zinc,. . .

14. The **allergen** neutralization composition of claim 13, wherein the additional metal ions are selected from the group consisting of zinc, stannous and. . .

15. The **allergen** neutralization composition of claim 1, wherein the solvent comprises water.

16. The **allergen** neutralization composition of claim 1, wherein the solvent comprises from about 0.01% to about 20% by weight of the composition. . .

17. The **allergen** neutralization composition of claim 16, wherein the solvent comprises from about 0.05% to about 10% by weight of the composition. . .

18. The **allergen** neutralization composition of claim 1, wherein the **aluminum** ion is present in the composition at about 0.001% to about 10% by weight, of the **allergen** neutralization composition.

19. The **allergen** neutralization composition of claim 18, wherein the **aluminum** ion is present in the composition at about 0.01% to about 5.0% by weight of the **allergen** neutralization composition.

20. The **allergen** neutralization composition of claim 1, further comprising a miticide.

L6 ANSWER 6 OF 21 USPATFULL DUPLICATE 3

ACCESSION NUMBER: 2002:285260 USPATFULL

TITLE: Apparatus and method for nasal rinse

INVENTOR(S): Mehta, Ketan C., Santa Rosa, CA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002158089	A1	20021031	
	US 6520384	B2	20030218	
APPLICATION INFO.:	US 2001-845759	A1	20010430	(9)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: FISH & RICHARDSON P.C., 500 ARGUELLO STREET, SUITE 500, REDWOOD CITY, CA, 94063

NUMBER OF CLAIMS: 33

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 5 Drawing Page(s)

LINE COUNT: 532

SUMM . . . the development of an antibody, which subsequently creates a series of chemical reactions leading to symptoms. Every individual's reaction to **allergen** exposure is different. Indoor allergens including dust mites, mold, pet dander and cockroaches. Outdoor allergens including pollens, grass and mold. Other substances such as cigarette smoke, perfumes and **aerosol** sprays are irritants that can worsen **allergy** and sinus symptoms.

SUMM . . . rhinitis and sinusitis that uses a saline solution dispensed into the nasal passage to cleanse and wash away mucus and **allergy** creating particles and irritants. Lavaging allows the sinuses to drain normally and reduces the inflammation of the mucus membrane.

SUMM . . . however a bottle filled with saline solution can be quite expensive. Alternatively, saline solution can be prepared at home using **household** ingredients. However, there is a concern for cleanliness and contamination and for ensuring the proper concentration level and acidity is. . .

DETD . . . NaHCO.sub.3, results in a more acidic solution that can cause burning when used to a rinse a nasal passage. An **aluminum**

lining can be used inside the packets to protect the contents from moisture, which can adversely affect the ease with. . .

L6 ANSWER 7 OF 21 USPATFULL

ACCESSION NUMBER: 2002:179163 USPATFULL
TITLE: Nucleic acids, proteins, and antibodies
INVENTOR(S): Rosen, Craig A., Laytonsville, MD, UNITED STATES
Ruben, Steven M., Olney, MD, UNITED STATES
Barash, Steven C., Rockville, MD, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002094953	A1	20020718	
APPLICATION INFO.:	US 2001-764860	A1	20010117	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-179065P	20000131	(60)
	US 2000-180628P	20000204	(60)
	US 2000-214886P	20000628	(60)
	US 2000-217487P	20000711	(60)
	US 2000-225758P	20000814	(60)
	US 2000-220963P	20000726	(60)
	US 2000-217496P	20000711	(60)
	US 2000-225447P	20000814	(60)
	US 2000-218290P	20000714	(60)
	US 2000-225757P	20000814	(60)
	US 2000-226868P	20000822	(60)
	US 2000-216647P	20000707	(60)
	US 2000-225267P	20000814	(60)
	US 2000-216880P	20000707	(60)
	US 2000-225270P	20000814	(60)
	US 2000-251869P	20001208	(60)
	US 2000-235834P	20000927	(60)
	US 2000-234274P	20000921	(60)
	US 2000-234223P	20000921	(60)
	US 2000-228924P	20000830	(60)
	US 2000-224518P	20000814	(60)
	US 2000-236369P	20000929	(60)
	US 2000-224519P	20000814	(60)
	US 2000-220964P	20000726	(60)
	US 2000-241809P	20001020	(60)
	US 2000-249299P	20001117	(60)
	US 2000-236327P	20000929	(60)
	US 2000-241785P	20001020	(60)
	US 2000-244617P	20001101	(60)
	US 2000-225268P	20000814	(60)
	US 2000-236368P	20000929	(60)
	US 2000-251856P	20001208	(60)
	US 2000-251868P	20001208	(60)
	US 2000-229344P	20000901	(60)
	US 2000-234997P	20000925	(60)
	US 2000-229343P	20000901	(60)
	US 2000-229345P	20000901	(60)
	US 2000-229287P	20000901	(60)
	US 2000-229513P	20000905	(60)
	US 2000-231413P	20000908	(60)
	US 2000-229509P	20000905	(60)
	US 2000-236367P	20000929	(60)
	US 2000-237039P	20001002	(60)
	US 2000-237038P	20001002	(60)
	US 2000-236370P	20000929	(60)
	US 2000-236802P	20001002	(60)
	US 2000-237037P	20001002	(60)

US 2000-237040P 20001002 (60)
US 2000-240960P 20001020 (60)
US 2000-239935P 20001013 (60)
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
LINE COUNT: 21647
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . the area. Mast cells can be triggered to release these substances in response to something they recognize as foreign (an **allergen**), such as pollen, house dust mites, or animal dander. However, asthma is also common and severe in many people without. . .

SUMM . . . depending on the host species, and include but are not limited to, Freund's (complete and incomplete), mineral gels such as **aluminum** hydroxide, surface active substances such as lysolecithin, pluronic polyols, polyanions, peptides, oil emulsions, keyhole limpet hemocyanins, dinitrophenol, and potentially useful. . .

SUMM . . . injection into the interstitial space of tissues. However, other parenteral routes may also be used, such as, inhalation of an **aerosol** formulation particularly for delivery to lungs or bronchial tissues, throat or mucous membranes of the nose. In addition, naked DNA. . .

SUMM [0490] Preferred methods of systemic administration, include intravenous injection, **aerosol**, oral and percutaneous (topical) delivery. Intravenous injections can be performed using methods standard in the art. **Aerosol** delivery can also be performed using methods standard in the art (see, for example, Stribling et al., Proc. Natl. Acad.. . .

SUMM . . . lung injury, inflammatory bowel disease, Crohn's disease, over production of cytokines (e.g., TNF or IL-1.), respiratory disorders (e.g., asthma and **allergy**); gastrointestinal disorders (e.g., inflammatory bowel disease); cancers (e.g., gastric, ovarian, lung, bladder, liver, and breast); CNS disorders (e.g., multiple sclerosis;. . .

SUMM . . . depots, other commercially available depot materials, osmotic pumps, oral or suppositorial solid pharmaceutical formulations, decanting or topical applications during surgery, **aerosol** delivery. Such methods are known in the art. Polypeptides may be administered as part of a Therapeutic, described in more. . .

SUMM . . . depots, other commercially available depot materials, osmotic pumps, oral or suppositorial solid pharmaceutical formulations, decanting or topical applications during surgery, **aerosol** delivery. Such methods are known in the art. Polypeptides may be administered as part of a Therapeutic, described in more. . .

SUMM . . . surgical procedures. For example, within one aspect of the present invention a compositions (in the form of, for example, a **spray** or film) may be utilized to coat or **spray** an area prior to removal of a tumor, in order to isolate normal surrounding tissues from malignant tissue, and/or to. . . spread of disease to surrounding tissues. Within other aspects of the present invention, compositions (e.g., in the form of a **spray**) may be delivered via endoscopic procedures in order to coat tumors, or inhibit angiogenesis in a desired locale. Within yet. . .

SUMM . . . depots, other commercially available depot materials, osmotic pumps, oral or suppositorial solid pharmaceutical formulations, decanting or topical applications during surgery, **aerosol** delivery. Such methods are known in the art. Polypeptides may be administered as part of a Therapeutic, described in more. . .

DETD . . . intracistemally, intravaginally, intraperitoneally, topically (as by powders, ointments, gels, drops or transdermal patch), bucally, or as an oral or nasal **spray**. "Pharmaceutically acceptable

carrier" refers to a non-toxic solid, semisolid or liquid filler, diluent, encapsulating material or formulation auxiliary of any.. . .

DETD . . . intracistemally, intravaginally, intraperitoneally, topically (as by powders, ointments, gels, drops or transdermal patch), bucally, or as an oral or nasal **spray**. "Pharmaceutically acceptable carrier" refers to a non-toxic solid, semisolid or liquid filler, diluent, encapsulating material or formulation auxiliary of any. . .

DETD . . . with the Therapeutics of the invention include, but are not limited to, Monophosphoryl lipid immunomodulator, AdjuVax 100a, QS-21, QS-18, CRL1005, **Aluminum** salts, MF-59, and Virosomal adjuvant technology. Vaccines that may be administered with the Therapeutics of the invention include, but are. . .

DETD . . . injection into the interstitial space of tissues. However, other parenteral routes may also be used, such as, inhalation of an **aerosol** formulation particularly for delivery to lungs or bronchial tissues, throat or mucous membranes of the nose. In addition, naked polynucleotide. . .

DETD [1220] To avoid infection, animals are housed individually with mesh (no **bedding**). Recovering animals are checked daily through the optimal edematous peak, which typically occurred by day 5-7. The plateau edematous peak. . .

L6 ANSWER 8 OF 21 USPATFULL

ACCESSION NUMBER: 2002:171866 USPATFULL

TITLE: Nucleic acids, proteins, and antibodies

INVENTOR(S): Rosen, Craig A., Laytonsville, MD, UNITED STATES
Ruben, Steven M., Olney, MD, UNITED STATES
Barash, Steven C., Rockville, MD, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002090615	A1	20020711	
APPLICATION INFO.:	US 2001-764878	A1	20010117	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-179065P	20000131	(60)
	US 2000-180628P	20000204	(60)
	US 2000-214886P	20000628	(60)
	US 2000-217487P	20000711	(60)
	US 2000-225758P	20000814	(60)
	US 2000-220963P	20000726	(60)
	US 2000-217496P	20000711	(60)
	US 2000-225447P	20000814	(60)
	US 2000-218290P	20000714	(60)
	US 2000-225757P	20000814	(60)
	US 2000-226868P	20000822	(60)
	US 2000-216647P	20000707	(60)
	US 2000-225267P	20000814	(60)
	US 2000-216880P	20000707	(60)
	US 2000-225270P	20000814	(60)
	US 2000-251869P	20001208	(60)
	US 2000-235834P	20000927	(60)
	US 2000-234274P	20000921	(60)
	US 2000-234223P	20000921	(60)
	US 2000-228924P	20000830	(60)
	US 2000-224518P	20000814	(60)
	US 2000-236369P	20000929	(60)
	US 2000-224519P	20000814	(60)
	US 2000-220964P	20000726	(60)
	US 2000-241809P	20001020	(60)
	US 2000-249299P	20001117	(60)
	US 2000-236327P	20000929	(60)
	US 2000-241785P	20001020	(60)

	US 2000-244617P	20001101 (60)
	US 2000-225268P	20000814 (60)
	US 2000-236368P	20000929 (60)
	US 2000-251856P	20001208 (60)
	US 2000-251868P	20001208 (60)
	US 2000-229344P	20000901 (60)
	US 2000-234997P	20000925 (60)
	US 2000-229343P	20000901 (60)
	US 2000-229345P	20000901 (60)
	US 2000-229287P	20000901 (60)
	US 2000-229513P	20000905 (60)
	US 2000-231413P	20000908 (60)
	US 2000-229509P	20000905 (60)
	US 2000-236367P	20000929 (60)
	US 2000-237039P	20001002 (60)
	US 2000-237038P	20001002 (60)
	US 2000-236370P	20000929 (60)
	US 2000-236802P	20001002 (60)
	US 2000-237037P	20001002 (60)
	US 2000-237040P	20001002 (60)
	US 2000-240960P	20001020 (60)
	US 2000-239935P	20001013 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850	
NUMBER OF CLAIMS:	24	
EXEMPLARY CLAIM:	1	
LINE COUNT:	19407	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . the area. Mast cells can be triggered to release these substances in response to something they recognize as foreign (an **allergen**), such as pollen, house dust mites, or animal dander. However, asthma is also common and severe in many people without. . .

SUMM . . . depending on the host species, and include but are not limited to, Freund's (complete and incomplete), mineral gels such as **aluminum** hydroxide, surface active substances such as lysolecithin, pluronic polyols, polyanions, peptides, oil emulsions, keyhole limpet hemocyanins, dinitrophenol, and potentially useful. . .

SUMM . . . injection into the interstitial space of tissues. However, other parenteral routes may also be used, such as, inhalation of an **aerosol** formulation particularly for delivery to lungs or bronchial tissues, throat or mucous membranes of the nose. In addition, naked DNA. . .

SUMM [0479] Preferred methods of systemic administration, include intravenous injection, **aerosol**, oral and percutaneous (topical) delivery. Intravenous injections can be performed using methods standard in the art. **Aerosol** delivery can also be performed using methods standard in the art (see, for example, Stribling et al., Proc. Natl. Acad.. . .

SUMM . . . lung injury, inflammatory bowel disease, Crohn's disease, over production of cytokines (e.g., TNF or IL-1.), respiratory disorders (e.g., asthma and **allergy**); gastrointestinal disorders (e.g., inflammatory bowel disease); cancers (e.g., gastric, ovarian, lung, bladder, liver, and breast); CNS disorders (e.g., multiple sclerosis;. . .

SUMM . . . depots, other commercially available depot materials, osmotic pumps, oral or suppositorial solid pharmaceutical formulations, decanting or topical applications during surgery, **aerosol** delivery. Such methods are known in the art. Polypeptides may be administered as part of a Therapeutic, described in more. . .

SUMM . . . depots, other commercially available depot materials, osmotic pumps, oral or suppositorial solid pharmaceutical formulations, decanting or topical applications during surgery, **aerosol**

delivery. Such methods are known in the art. Polypeptides may be administered as part of a Therapeutic, described in more. . .

SUMM . . . surgical procedures. For example, within one aspect of the present invention a compositions (in the form of, for example, a **spray** or film) may be utilized to coat or **spray** an area prior to removal of a tumor, in order to isolate normal surrounding tissues from malignant tissue, and/or to. . . spread of disease to surrounding tissues. Within other aspects of the present invention, compositions (e.g., in the form of a **spray**) may be delivered via endoscopic procedures in order to coat tumors, or inhibit angiogenesis in a desired locale. Within yet. . .

SUMM . . . depots, other commercially available depot materials, osmotic pumps, oral or suppositorial solid pharmaceutical formulations, decanting or topical applications during surgery, **aerosol** delivery. Such methods are known in the art. Polypeptides may be administered as part of a Therapeutic, described in more. . .

DETD . . . intracistemally, intravaginally, intraperitoneally, topically (as by powders, ointments, gels, drops or transdermal patch), bucally, or as an oral or nasal **spray**. "Pharmaceutically acceptable carrier" refers to a non-toxic solid, semisolid or liquid filler, diluent, encapsulating material or formulation auxiliary of any.. . .

DETD . . . intracistemally, intravaginally, intraperitoneally, topically (as by powders, ointments, gels, drops or transdermal patch), bucally, or as an oral or nasal **spray**. "Pharmaceutically acceptable carrier" refers to a non-toxic solid, semisolid or liquid filler, diluent, encapsulating material or formulation auxiliary of any. . .

DETD . . . with the Therapeutics of the invention include, but are not limited to, Monophosphoryl lipid immunomodulator, AdjuVax 100a, QS-21, QS-18, CRL1005, **Aluminum** salts, MF-59, and Virosomal adjuvant technology. Vaccines that may be administered with the Therapeutics of the invention include, but are. . .

DETD . . . injection into the interstitial space of tissues. However, other parenteral routes may also be used, such as, inhalation of an **aerosol** formulation particularly for delivery to lungs or bronchial tissues, throat or mucous membranes of the nose. In addition, naked polynucleotide. . .

DETD [1179] To avoid infection, animals are housed individually with mesh (no **bedding**). Recovering animals are checked daily through the optimal edematous peak, which typically occurred by day 5-7. The plateau edematous peak. . .

L6 ANSWER 9 OF 21 USPATFULL

ACCESSION NUMBER: 2002:164425 USPATFULL

TITLE: New cosmetic, personal care, cleaning agent, and nutritional supplement compositions and methods of making and using same

INVENTOR(S): Lee, Sean, Karlsruhe, GERMANY, FEDERAL REPUBLIC OF
Kessler, Susanna, Ergolding, GERMANY, FEDERAL REPUBLIC OF
Forberich, Oliver, Oberursel, GERMANY, FEDERAL REPUBLIC OF
Buchwar, Claire, Wiesbaden, GERMANY, FEDERAL REPUBLIC OF
Greenspan, David C., Grainsville, FL, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2002086039	A1	20020704	
APPLICATION INFO.:	US 2001-818466	A1	20010327	(9)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2000-192261P	20000327	(60)
	US 2000-197162P	20000414	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: KRAMER LEVIN NAFTALIS & FRANKEL LLP, 919 THIRD AVENUE, NEW YORK, NY, 10022
NUMBER OF CLAIMS: 134
EXEMPLARY CLAIM: 1
LINE COUNT: 4825
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . to the cosmetic including a beneficial preservative effect. Applicants also have found that bioactive glass preserves a variety of standard **household** and industrial cleaning agents. Further, certain bioactive glass compositions provide excellent cleaning properties and greatly enhance the cleaning properties of standard **household** and industrial cleaning agents. In addition, applicants have found that certain bioactive glass compositions are useful as a functional food. . .

SUMM . . . (TEOS), triethylphosphate (TEP), and calcium nitrate can be used to make sol-gel bioactive glasses. Alkoxides of calcium, titanium, zirconium, magnesium, **aluminum**, iron and potassium also can be used. Other appropriate ingredients will also be apparent to those of ordinary skill in. . .

SUMM . . . accordance with the present invention can be well preserved using bioactive glass, without having to add skin-irritating cytotoxic and possibly **allergen** producing chemical preservatives to the preparation. Furthermore, an additional nurturing effect may be achieved through the antimicrobial and inflammation-inhibiting effect. . .

SUMM . . . not limited to the following:
Dimethicone
Simethicone
Cyclomethicone
Dimethicone ethoxylates and propoxylates
Cosmetically acceptable fluorocarbons and derivatives - including, but not limited to the following:
Zonyls
Fluorcarbon alcohols
Cosmetically acceptable **aerosol** propellants - including, but not limited to the following:
Propane
Butane
Pentane
Isobutane
HFC, CFC, HCFC

SUMM . . . ketones - including, but not limited to the following:
Acetone
Methyl Ethyl Ketone
Cosmetically acceptable Aliphatic compounds - including, but not limited to the following:
n-alkanes
branched alkanes
Permethyls
Aerosol propellant gases
Cosmetically acceptable fluorocarbons, chloro fluoro carbons, hydro fluoro carbons and hydro chloro fluoro carbons - including, but not limited to the following:
Aerosol propellant gases

SUMM . . . bar, liquid and gel form and bath salt products; shampoo and hair detangling products; hair mousse, hair gel and hair **spray** products; antiperspirant and deodorant products in powder, creme, roll-on, **aerosol** and stick form; aftershave and shaving lotion products; shaving products in creme, gel, powder and soap forms; depilatory, epilatory and. . .

SUMM . . . aloe gel, cocoa butter, DEA-cetyl phosphate, dimethicone, disodium EDTA, DMDM hydantoin, eucalyptus oil, fragrance, glyceryl stearate, iodopropyl butylcarbamate, lanolin, magnesium **aluminum** silicate, PEG-100 stearate, polysorbate 60, sodium metabisulfite, sorbic acid, steareth-20, xanthan gum and various vitamin, mineral, fruit and plant extracts.

SUMM . . . include one or more of the following: PVP/hexadecene, isopropyl myristate, 2-ethylhexyl salicylate, acrylates/C10-30 alkyl acrylate crosspolymer, acrylates/octylacrylamide copolymer, aloe extract, **aluminum** stearate, avobenzone (parsol 1789), barium sulfate, benzophenone-3, benzyl alcohol, butylcarbamate, C12-15 alkyl benzoate, ceteareth-20, cetearyl alcohol, cetyl palmitate, cyclomethicone, DEA-cetyl. . .

DETD . . . citric acid, cyclomethicone, ethylparaben, fragrance, glycerin, glyceryl rosinate, hydgroplex Hhg Whn, hydrolyzed keratin, hydroxyethylcellulose, imidazolidinyl urea, iron oxides, kaolin, magnesium **aluminum** silicate, methyl ethyl propyl butylparabens/phenoxyethanol, MIPA-lanolate, MIPA-oleate, nnoxynol-10, oleic acid, oleyl alcohol, PEG-100 stearate, pentaerythrityl tetrastearate, phenoxyethanol, polybutene, polyethylene, polyquaternium. . .

DETD . . . products may also include one or more of the following: PPG-2 myristyl ether propionate ceresin, castor oil, vegetable oil, lanolin, **aluminum** powder, bronze powder, copper powder, zinc oxide, **aluminum** powder, ammonium hydroxide, ascorbic acid, ascorbyl palmitate, benzyldimethylstearylammonium hectorite, BHA, bismuth oxychloride, butyl stearate, butylene glycol, butylparaben, candelilla wax, caprylic/capric. . .

DETD . . . methyl glucose sesquistearate, sodium stearate, tribehenin, polymethyl methacrylate, salicylic acid, hydrolyzed vegetable protein, silica, talc, microcrystalline wax, dimethicone copolyol, polyglyceryl-6-polyricinoleate, **aluminum** stearate, boron nitride, dimethiconol, diisostearyl malate, casein, carrageenan, tocopheryl acetate, retinyl palmitate, aloe extract, ascorbic acids, menthol, calcium chloride, nylon-12,. . .

DETD . . . trimellitate, bis-digly-ceryl caprylate/caprate/isostearate/ste a, glyceryl rosinate, acetylated glycol stearate, acetylated lanolin, acetylated lanolin alcohol, acrylates copolymer, alcohol denatured, alkyl octanoate, allantoin, **aluminum** hydroxide, **aluminum** starch octenylsuccinate, aminoethylpropanol, arachidyl behenate, ascorbyl palmitate, barium sulfate, beeswax, bentonite, benzoic acid, BHA, BHT, bisabolol, bisacodyl, bismuth oxychloride, butylparaben, C12-15 alcohols octanoate, C12-15 alkyl benzoate, calcium **aluminum** borosilicate, candelilla wax, caprylic/capric triglyceride, carnauba, castor oil, cellulose gum, cetearyl alcohol, cetearyl octanoate, cethyl acetate, cetyl alcohol, cetyl dimethicone. . . titanium triisostearate, isostearyl neopentanoate, isostearyl palmitate, kaolin, lanolin, lanolin alcohol, lanolin oil, laureth-7, lauroyl lysine, lecithin, lipophilic glyceryl monostearate, magnesium **aluminum** silicate, magnesium carbonate, magnesium sulfate, methicone, methyl glucose sesquistearate, methyl polysiloxane, mica, mineral oil; myristyl lactate, octamethyl cyclotetrasiloxane, octyl methoxycinamate,. . .

DETD [0151] Common formulations of face powder products comprise talc, mineral oil, zinc stearate, kaolin, **aluminum** starch octenylsuccinate, acrylates copolymer, silk powder, silica, propylparaben, methylparaben, calcium silicate, imidazolidinyl urea, iron dioxides and ultramarines.

DETD [0174] Nail polish products may also include one or more of the following: acrylates copolymer, algae extract, **aluminum**, amyul acetate, benzophenone-1, biotin, bismuth oxychloride, chromium hydroxide green, chromium oxide greens, diacetone alcohol, dibutyl phthalate,. dimethicone copolyol, dipropylene glycol. . . ultramarines, various coloring agents, stearalkonium hectorite, dimethicone copolyol, acrylate

copolymer, dipropylene glycol dibenzoate, tribenzoin, biotin, panthenol, retinyl palmitate, tocopheryl acetate, **aluminum** powder, bismuth oxychloride, polyester resin, sucrose acetate isobutyrate, diacetone alcohol, benzophenone-1, guanine, toluene, tosylamide/formaldehyde resin, dibutyl phthalate, tetrabutyl phenyl hydroxybenzoate,. . .

DETD . . . sodium polynapthalene sulfonate, sodium tallowate, talc, titanium dioxide, trisodium hedta, various plant and mineral extracts, water, xanthan gum, zinc oxide, **aluminum** hydroxide, glyceryl stearate SE and PEG-12.

DETD . . . oxides, isocetyl alcohol, isopropyl myristate, isopropyl palmitate, lactic acid, lanolin oil, laureth-4, laureth-9, lauric acid, lauryl phosphate, lauryl polyglucose, magnesium **aluminum** silicate, menthol, methyl gluceth 20, methylchloroisothiazolinone, methyldibromo glutaronitirle, methylisothiazolinone, methylparaben, mineral oil, myristic acid, octyl hydroxystearate, olive oil, palmitic acid,. . .

DETD . . . lotion products comprise water, glycerin, stearic acid, aloe gel, glycol stearate, soya sterol, lecithin, dimethicone, glyceryl stearate, cetyl alcohol, magnesium **aluminum** silicate, fragrance, carbomer, stearamide AMP, methylparaben, DMDM hydantoin, iodopropynl, butycarbamate, disodium EDTA, butylene glycol, titanium dioxide, various mineral, fruit, vegetable,. . .

DETD . . . lanolin alcohol, acrylates copolymer, acrylates/C10-30 alkyl acrylate crosspolymer, acrylates/carbamate copolymer, alantoin octyl dimenthyl paba, alcohol, allantointetra EDTA, alpha lipoic acid, **aluminum** starch octenylsuccinate, ammonium glycolate, ammonium hydroxide, ammonium lactate, apricot kernel oil, ascorbic acid polypeptide (vitamin c), ascorbyl palmitate, avobenzone, beeswax,. . .

DETD . . . brands of anti-itch products such as the products marketed under the brand names A&D Ointment, After Bite, Americaine, Aquaphor, Arctic **Spray**, Aveeno, Baciguent, Bactine, Benadryl, Betadine, Blue Star, Boil Ease, Caladryl, Caldecort, Campho-Phenique, Chiggerex, Cortaid, Cortizone, Dermarest, Dermoplast, Exorex, Foille, Gold. . .

DETD . . . also include one or more of the following inactive ingredients: 1-hexadecanol, 5-chloro-2-methyl-4-isothiazolin-3-one (and) 2-met, acetic acid, adhesives, alcohol, aloe vera, **aluminum** sulfate, ammonia, benzalkonium chloride, benzyl alcohol, bisabolol, butylene glycol, calamine, calcium acetate, carbomer, ceresin, ceteareth-20, cetearyl alcohol, ceteth-2, cetyl alcohol,. . .

DETD [0256] Shampoo Detangling, Hair Mousse, Hair Gel and Hair **Spray** Products

DETD . . . includes novel formulations which incorporate bioactive glass into various brands of shampoo, hair detangling, hair mousse, hair gel and hair **spray** products such as the products marketed under the brand names Adorn, Agree, Alberto VO5, Allercreme, Aloe Vera 80, American Crew,. . .

DETD . . . of the following: 2-oleamido-1,3-octadecanediol (ceramide-r), acetamide MEA, acrylates/C10-30 alkyl acrylate crosspolymer, acrylic acid polymer (carbomer 1342), alcohol, aloe vera gel, **aluminum** starch octenylsuccinate, amodimethicone, arginine, benzophenone-3, benzophenone-4, biotin, butylated hydroxytoluene, butylene glycol, butylparaben, carbomer, carboxylic acid, cetrimonium chloride, chloroxylenol, coal tar. . .

DETD [0263] Generally, hair mousse, hair gel and hair **spray** products comprise mineral oil, lanolin, stearic acid and zinc pyrithione.

DETD [0264] Common formulations of hair mousse, hair gel, and hair **spray** products comprise water, isobutane, polyquaternium-4, propane, propylene glycol, C9-11 pareth-8, DMDM hydantoin, fragrance, panthenol, disodium EDTA, panthenyl ethyl ether, pantethine,. . .

DETD [0265] Hair mousse, hair gel, and hair **spray** products may also include one or more of the following: acetamide MEA, acrylate copolymer, acrylates/dimethicone/methacrylate copolymer, alanine, alcohol denat,

allantoin,. . .

DETD [0266] The present invention provides for novel formulations of hair mousse, hair gel, and hair **spray** products by incorporating bioactive glass into a combination of any of the above-listed ingredients.

DETD . . . invention includes novel formulations which incorporate bioactive glass into various brands of anti-perspirant and deodorant products in powder, creme, roll-on, **aerosol** and stick form such as the products marketed under the brand names 5 Day, Allercreme, Almay, Aqua Velva, Arm &. . .

DETD [0275] Generally, antiperspirant or deodorant products comprise **aluminum** chlorohydrate, **aluminum** chloride, zirconium chlorides or triclosan.

DETD [0276] Common formulations of antiperspirant and deodorant products in stick, roll-on, **aerosol**, creme, pad, and powder form comprise active ingredients consisting of **aluminum** zirconium tetrachlorohydrex gly or **aluminum** chlorohydrate.

DETD [0277] Anti-perspirant and deodorant products may also include one or more of the following: alcloxa, alcohol, allantoin, aloe vera gel, **aluminum** chloride, PPG-14 butyl ether, cyclomethicone, baking soda, behenyl alcohol, benzethonium chloride, benzoic acid, BHT, C12-15 alkyl benzoate, C18-36 acid triglyceride,. . .

DETD [0285] Aftershave and shaving lotion products may also include one or more of the following: aloe extract, **aluminum** starch octenylsuccinate, benzoic acid, benzyl alcohol, BHT, C12-15 alkyl benzoate, carbomer 980, cassava flour, cyclomethicone, dimethicone, disodium EDTA, ethylenediamine, isodecyl. . .

DETD . . . in cream gel, powder, or soap form may also include one or more of the following: 1-dodecanol, allantoin, aloe extract, **aluminum** starch octenylsuccinate, ammonium hydroxide, barium sulfide, behentrimonium methosulfate, benzaldehyde, benzophenone-1, benzyl alcohol, BHA, BHT, bromelain, butane, C16 to C22, calcium. . .

DETD . . . greens, ultramarine blues and pinks and ferric oxides as well as water insoluble dye lakes prepared by extending calcium or **aluminum** salts of FD&C dyes on alumina such as FD&C Green #1 lake, FD&C Blue #2 lake, FD&C R&D #30 lake. . .

DETD [0374] In patch testing, the suspected topical **allergen** has to penetrate the stratum corneum to the viable (effector) cells of the skin to present a local challenge to. . .

DETD [0465] Particulate bioactive glass and/or aqueous extracts of particulate bioactive glass can be added to standard **household** cleaning agents as well as industrial cleaning agents. The resulting formulations provide cleaning agents with enhanced cleaning and anti-microbial properties.. . . containing bioactive glass may be used to effectively clean and disinfect surfaces including, but not limited to painted walls, wood **furniture**, vinyl floors (waxable and nonwax), vitreus china, porcelain enamel, stainless steel, plastic laminate (Formica.RTM.), plastic, acrylic, fiberglass, and chrome. These. . .

DETD [0471] Bioactive glass is well-suited as a glass cleaner since it is "softer" than standard **household** cleaners and is suitable as a mild abrasive. In addition, the soluble minerals released by bioactive glass strengthens glass. For. . .

DETD . . . glass and/or an aqueous extract of bioactive glass. The aqueous solutions of bioactive glass may be dried, for example, by **spray** drying or by drying in vacuo to provide an antimicrobial composition. The compositions can be incorporated into other antimicrobial solutions. . .

DETD . . . napkin products, cotton swabs, handiwipes, scouring and sponge products, oven cleaning products, toilet cleaning products, tub and shower cleaning products, **carpet** cleaning products, all purpose cleaning products, and jewelry and metal cleaning products.

DETD . . . Cling Free, Clorox, Dow, Downy, Dreft, Dryel, Era, Fab, Febreze, Fresh Start, Gain, Ivory, K2R, Oxydol, Purex, Rit, Shout,

Snuggle, **Spray** & Wash, Stain Devil, Sun Cuddle, Surf, Thoro, Tide, Ultra, Windfresh, Wisk, Woolite, Z'Out, and products produced by high-end and. . .

DETD [0535] **Carpet** Cleaning Products

DETD [0536] The present invention includes novel formulations which incorporate bioactive glass into various brands of **carpet** cleaning products such as the products marketed under the brand names Arm & Hammer, **Carpet** Fresh, Folex, Formula 409, Glade, Simply Spot-Less, Spot Shot, Resolve, Shout, Woolite, and products produced by high-end and generic manufacturers.

DETD [0537] Generally, **carpet** cleaning products comprise the active ingredient sodium bicarbanate and fragrance.

DETD [0538] The present invention provides for novel formulations of **carpet** cleaning products by incorporating bioactive glass into a combination of any of the above-listed ingredients.

DETD [0539] The antimicrobial and pH effects of bioactive glass are particularly useful in **carpet** cleaning products to reduce bacteria and odor.

DETD . . . include one or more of the following: calcium carbonate, magnesium stearate, mineral oil, sodium hexametaphosphate, starch, stearic acid, sucrose, talc, **aluminum** hydroxide, magnesium carbonate, alginic acid, calcium stearate, aspartame, croscarmellose sodium, silica, various artificial and natural flavorings, and various coloring agents.

DETD [0585] Bioactive glasses are particularly helpful in reducing or minimizing the toxic effects of **aluminum**. In addition to the sequestering or binding discusssed above, bioactive glasses release additional calcium and phosphate, which **aluminum** tends to bind. The **aluminum** so bound is thus made less available for toxic effects or damaging physiological processes.

DETD . . . incorporating bioactive glass may be beneficial for treating or preventing many harmful disease processes and conditions associated with, for example, **aluminum** including, but not limited to, osteoporosis, osteodystrophy, and other conditions in which stimulation of of osteoblastic activity is desired.

DETD [0587] In addition, these dietary supplements by binding **aluminum**, may be beneficial in preventing, slowing, or reversing the effects of Alzheimer's disease, various forms of encephalopathy, and various forms. . .

DETD [0588] In addition to **aluminum**, bioactive glass can be used to bind other metal ions, including, for example, lead, cadmium, zinc, and iron. Accordingly, harmful. . .

DETD [0590] In addition to the products listed above, bioactive glass may be added to or included in the following **household** products: dust filters, wall paint/wallpaper, toilet seat covers, mold remover, ceramic/bathroom tile laminates, water filters, mattress fillers, cleaning agents for. . .

DETD . . . napkin products, cotton swabs, handiwipes, scouring products, sponge products, oven cleaning products, toilet cleaning products, tub and shower cleaning products, **carpet** cleaning products, all purpose cleaning products, jewelry products, and metal cleaning products.

DETD . . . napkin products, cotton swabs, handiwipes, scouring products, sponge products, oven cleaning products, toilet cleaning products, tub and shower cleaning products, **carpet** cleaning products, all purpose cleaning products, jewelry products, and metal cleaning products.

L6 ANSWER 10 OF 21 USPATFULL

ACCESSION NUMBER: 2002:119335 USPATFULL

TITLE: Modulation of allergic response

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EXEMPLARY CLAIM: 1
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AB The modulation or elimination of an allergic condition according to the invention can be achieved by injecting small amounts of **allergen** directly into a lymph node, which greatly reduces the potential for side effects.

SUMM [0002] This invention relates to the field of **allergy** vaccines and treatments. More particularly, the invention contemplates a method of delivery of allergens.

SUMM [0003] An **allergy** is the result of a powerful immune system reaction against a substance that should normally be inoffensive to the host. A recent survey by the American College of **Allergy**, Asthma and Immunology (ACAAI) reveals that approximately 38% of the US population suffers from allergies (Immunotherapy Weekly, Nov. 29, 1999).. . .

SUMM . . . R. The value of an in-hospital insect sting challenge as a criterion for application or omission of venom immunotherapy. J **Allergy** Clin Immunol. 1996;98:39-47; Bousquet, J, Lockey, R F, Mailing, H-J. **Allergen** immunotherapy: therapeutic vaccines for allergic diseases [WHO Position Paper]. World Health Organization, **Allergy**. 1998; 53(suppl):12-16; Lack G, Nelson H S, Amran D, et al. Rush immunotherapy results in **allergen**-specific alterations in lymphocyte function and interferon-.gamma. production in CD4+T cells. J **Allergy** Clin Immunol. 1997;99:530-538; Muller U. Diagnosis and treatment of insect sting sensitivity. J Asthma Res. 1966;3:331-333; Weber, R W. Immunotherapy. . .

SUMM [0006] The first exposure to an effective **allergen** causes only a mild immune response that sensitizes the immune system to the substance. However, subsequent exposures to the **allergen** result in allergic symptoms, typically in a dose dependent manner (ie, the **allergen** must reach a certain threshold), and may cause an increasingly severe response with repeated exposures. Allergic symptoms include itching and. . . symptoms. See Table 1 below for the Muller classification of allergic reactions. The type of symptom depends on the specific **allergen**, the part of the body where exposure occurs, and the degree of sensitization of the individual. Allergens that are inhaled. . . often cause nasal congestion, itchy nose and throat, and mucus production. In highly allergic individuals or with higher doses of **allergen**, coughing, wheezing, or similar symptoms occur. In contrast, ingested allergens cause itching of the throat, vomiting, stomach cramps, diarrhea, and. . .

SUMM [0007] The largest numbers of **allergy** sufferers, about 45 million Americans, are those who are allergic to pollen and are afflicted with airway diseases such as. . .

SUMM [0008] Cockroach **allergy** is an **allergy** to the excrement of cockroaches, and is a trigger of asthmatic attacks. Dust mite **allergy** is an **allergy** to the excrement of a microscopic organism living in dust found in all dwellings and workplaces, and in virtually all **bedding**. Dust mites are perhaps the most common cause of perennial allergic rhinitis, producing

symptoms similar to pollen **allergy** and asthma. About half of all **allergy** sufferers are allergic to dust mites.

SUMM [0009] Over 10 million Americans are allergic to animals. **Household** pets are the most common source of such reactions. Many people think the fur of cats and dogs provokes pet. . . . the air and are inhaled by people. Some rodents, such as guinea pigs and gerbils, have become increasingly popular as **household** pets. They, too, can cause allergic reactions in some people, as can mice and rats.

SUMM . . . preventative measures for food allergies are often only marginally effective. The primary therapy is simply total avoidance of the specific **allergen**. Conventional subcutaneous **allergy** shots are ineffective against food allergies.

SUMM [0013] The reason for the increase in the number of **allergy** sufferers is currently under intense scientific debate. There are several possible explanations on which most scientists can agree. Air pollution. . . . play a role in the increasing frequency of allergic airway disease. Not only do nitric oxides increase the production of **allergenic** proteins in pollen, but they also directly damage sensitive cells lining the airway of the throat and lungs. This damage. . .

SUMM [0014] Scientists widely believe that a phenomenon known as cross-reactivity may also be a cause of the increasing **allergy** problem. Cross-reactivity occurs when a person, exposed to one particular **allergen**, subsequently has increased sensitization to another, similar kind of **allergen**. Food allergies are commonly found to be associated with allergic airway diseases. For example, if the pollen of the hazelnut tree is inhaled, a person may develop an **allergy** to hazelnuts. Cross-reactivity between allergens from pollen and allergens found in foods may in fact be one of the major. . .

SUMM . . . growing importance. Doctors use three general approaches to help people with allergies: they advise patients on ways to avoid the **allergen** as much as possible, prescribe medication to relieve allergic symptoms, and administer a series of **allergy** shots. Several potent anti-**allergy** drugs exist today. However, these drugs merely treat the symptoms of allergies, and some of them carry the risk of. . . Another strategy is to develop ways of conditioning the immune system to respond "appropriately" to allergens. Only this last approach, **allergy** shots or immunotherapy, is a causative treatment for allergies.

SUMM [0017] **Allergen** immunotherapy or hyposensitization is the practice of administering gradually increasing quantities of an **allergen** to an allergic subject to ameliorate the symptoms (allergic reaction) associated with subsequent exposure to the causative **allergen**. **Allergen** immunotherapy was introduced in 1911 to treat "pollinosis" and is currently established as the preferred treatment in the case of. . .

SUMM [0018] **Allergy** shots have proven useful in many cases to significantly and permanently relieve the extent of suffering experienced by allergic individuals. In fact, the current **allergy** shot approach is the only method that may be regarded as a curative means to reverse this disease condition. Early desensitization using the **allergy** shot approach to specific allergens has also proven somewhat effective against the occurrence of cross- reactive allergies to other substances. For example, a patient receiving **allergy** shots to treat hay fever by desensitizing against pollen has a decreased risk of becoming allergic to cat hair or. . .

SUMM [0019] Although **allergy** shots are currently the only means for treating the disease rather than the symptoms, there are obvious disadvantages to this. . . lengthy, lasting from 2 to 5 years, expensive, and only marginally effective. This treatment is ineffective in one-third of all **allergy** sufferers and only temporarily

effective in one-third of allergic individuals. Immunotherapy has long term effectiveness in only the remaining third. . .

SUMM [0020] The treatment duration for conventional immunotherapy is long and time consuming, usually comprising a total of 30 to 100 **allergen** injections, each requiring 1 hour or more of strict medical supervision after the shot is administered. For desensitization to certain. . .

SUMM [0021] **Allergy** shot regimens typically involve 2 treatment phases. The 1.sup.st phase employs about 20 **allergy** shots. During this phase the amount of **allergen** injected is increased with each dose, starting with minute amounts (as low as 0.0 1 .mu.g). Injections of diluted extracts of the **allergen** are administered on a regular schedule, usually twice a week or weekly at first, in increasing doses until a maintenance. . .

SUMM . . . however, if there is no benefit within 18 months, the shots are generally discontinued. After stopping immunotherapy, about one-third of **allergy** sufferers no longer have any symptoms, one-third have reduced symptoms, and one-third relapse completely.

SUMM [0023] In addition, during the desensitization phase, as more **allergen** is administered the injections usually cause moderate and sometimes severe side effects ranging from soreness and local swelling (wheal) or. . . low blood pressure. Side effects usually occur within 20 minutes, although some can develop up to 2 hours after the **allergy** shot is given. Anaphylaxis refers to an allergic reaction characterized by a sharp drop in blood pressure, hives or welts,. . .

SUMM . . . antigen presenting cells (APC) to eliminate extracellular pathogens or toxins. When an allergic person first comes into contact with an **allergen**, the immune system generates large amounts of a type of antibody called immunoglobin E, or IgE. Each IgE antibody binds with high affinity to one particular **allergenic** substance. In the case of pollen **allergy**, the antibody is specific for each type of pollen. For example, one type of antibody is produced to react against. . . These cytokines act on tissues in various parts of the body, such as the respiratory system, causing the symptoms of **allergy**.

SUMM . . . is accompanied by a decrease in PLA.sub.2-specific IgE, 5 and an increase in PLA.sub.2-specific IgG. The precise mechanisms by which **allergen** immunotherapy achieves clinical improvement in the symptoms of allergic patients is still not completely clear, but it seems as though IgG antibodies may protect against allergic reaction. Immunotherapy is associated with a reduction in **allergen** -induced IL-4 and IL-5 cytokine secretion, and a simultaneous increase in IFN-.gamma. secretion by **allergen**-specific T cells.

SUMM . . . This invention contemplates a method of modulating an allergic response of an individual comprising delivery by direct injection of an **allergen** to a lymph node of said individual whereby the allergic response is modulated. For individuals who lack lymph nodes or who possess defective lymph nodes, the **allergen** may be delivered to the lymphatic tissue or to an immune cell. In one specific aspect of the invention the **allergen** is delivered in combination with an adjuvant, or is precipitated on, or bound to a delivery or formulation substance. Still. . .

SUMM . . . achieved with as few as 1 to 3 injections. The targeted delivery also allows the use of smaller amounts of **allergen** than are used in conventional **allergy** shots, greatly reducing the potential for side effects such as urticaria, dyspnea, syncope, hypotension, myocardial events and even death.

DETD . . . invention is likely to be in the treatment of humans, it will also be suitable for treatment of animals, including **household** pets such as dogs and cats.

DETD [0056] The present invention involves the delivery of an **allergen** by injection directly into a lymph node in order to modulate an allergic response of an individual (for example, to. . . such as alterations in specific IgG levels, alterations in IgG ratios,

alterations in specific IgE levels, lowered sensitivity to the **allergen** or to a cross-reactive **allergenic** agent, alterations in activated basophils (such as the reduction of the amount of surface IgE), alterations in cytokine profiles (such. . .

DETD [0057] Intranodal administration of allergens has a number of advantages. Because lower doses of **allergen** can induce an IgG response more potently when injected directly into a lymph node, there are fewer side effects than observed using the conventional **allergy** shot regime. Moreover, delivery of the **allergen** to the lymph node by injection is no more painful to the patient than regular subcutaneous injections. An additional advantage of this method is that only two or three treatments typically are necessary to desensitize an individual against an **allergen**. This lowers the risk of side effects or reaction to the administration, and results in a significant cost savings compared with traditional **allergy** treatments.

DETD [0058] An "**allergen**" according to the invention can be any substance or portion thereof that elicits an allergic response. For example, common allergens. . . shellfish, eggs, soy, wheat, honey, fruits, viruses, bacteria, mold, protozoa, or latex. Allergens also can be any component of the **allergen** that elicits an allergic response, such as PLA.sub.2 in bee venom or urushiol in poison ivy. Likewise, an **allergen** can be a mixture of substances or a crude or purified extract of a generally **allergenic** composition. These allergens can be recovered from a natural source or can be a synthetic or non-naturally occurring substance, such. . . a synthesized peptide, or a mimetic chemical (including a peptide) that elicits an allergic response similar to a naturally occurring **allergen**.

DETD . . . in the practice of the invention comprises one or more allergens or one or more nucleic acid constructs encoding the **allergen**(s). The nucleic acid construct can be, for example, RNA or DNA or can simply be a naked nucleic acid construct, such as a plasmid or a virus, encoding the **allergen**. The **allergen** or nucleic acid construct can, if desired, be delivered to a specific cell type within a lymph node, such as. . . cell. A specific cell type can, if desired, be transfected with the nucleic acid construct so that it expresses the **allergen**. Optionally, the nucleic acid construct can be targeted via a vector to the desired cell type.

DETD [0061] The **allergen** may be encapsulated in a polymeric material to achieve sustained or pulsatile release. The form of the encapsulation can be,. . .

DETD [0062] The **allergen** is preferably delivered in a physiologically acceptable carrier suitable for injection. In general, any physiologically acceptable carrier known for use with vaccines or **allergy** shots can be used in the practice of this invention. The choice of such carriers includes, without limitation, water, standard. . .

DETD [0063] In one preferred embodiment, the **allergen** is delivered in combination with an adjuvant. The adjuvant may be, but is not limited to, one or more of the following: alum, BCG, **aluminum** hydroxide, **aluminum** phosphate, calcium phosphate, lipid emulsions, lipid or polymeric nano- or microspheres, micelles, liposomes, saponin, lipid A, or muramyl dipeptide, bacterial. . . acid construct. One or more of these components may be added to enhance the immune response, increase adsorption of the **allergen**, provide increased comfort to the patient, and/or slow the release of the **allergen** to prolong exposure. Alternatively, the **allergen** may be delivered without an adjuvant or in an aqueous form.

DETD [0064] The **allergen** may be delivered in a dose of about 0.1 .mu.g to 50 .mu.g and more preferably in a dose from about 0.1 .mu.g to about 10 .mu.g, although the optimal dose may vary depending on the

allergen being injected, the weight of the patient, the immune system of the patient, and the like. Effective treatment in many. . .

DETD . . . 5 .mu.g and 10 .mu.g over the course of from several days up to 3 months. In preferred embodiments, the **allergen** is delivered 2 to 3 times, 1 to 2 weeks apart. During desensitization treatment, 50 .mu.l to 200 .mu.l of an **allergen**-containing composition is administered directly into the lymph node starting with very small doses of **allergen**, from 0.1 .mu.g up to 10 .mu.g. This dose is one-tenth the normal dose for subcutaneous immunotherapy, and therefore the. . .

DETD . . . to several years. During maintenance treatment, the patient's lymph node is injected with from 0.1 .mu.g to 50 .mu.g of **allergen** in injections of typically 50 .mu.l to 200 .mu.l each. One skilled in the art will recognize that even smaller. . .

DETD [0068] During administration of the **allergen**, the patient's vital signs typically are closely monitored, and the lymph node reaction is monitored, for example, by ultrasound or. . .

DETD . . . for injection is within the skill of the art. One method is to use a dual-chamber syringe in which the **allergen** is included in one chamber and a liquid carrier in the other, to be mixed prior to injection.

DETD [0070] In preferred embodiments of the invention, the **allergen** is delivered directly to the lymph node during both desensitization treatment and maintenance treatment. Alternatively, the **allergen** may be delivered directly to the lymph node during the desensitization phase and subcutaneously during the maintenance phase. Although less. . .

DETD [0071] To determine the efficacy of the **allergen** administration, the patient can be tested for baseline reactions before administration begins, using assays such as those for the measurement of IgG and IgE levels, T-cell stimulation, basophil activation, and/or controlled **allergen** exposures, such as skin tests and bee sting challenge. To determine whether a patient has been desensitized, one or more. . .

DETD . . . IgG2a response. To induce even a very low IgG2a response against PLA.sub.2 using the conventional therapy, 10 .mu.g of the **allergen** must be used for immunization.

DETD [0077] Allergens or compositions comprising allergens can be provided in a kit. The kit can contain a composition comprising an **allergen** and a physiologically acceptable carrier, as well as instructions for the methods described herein. The kit also can contain a syringe, such as a dual-chambered syringe. Optionally, the syringe can be prefilled with the **allergen**-containing composition. If prefilled, the syringe contains an appropriate dosage of the composition, typically not exceeding a concentration of 100 .mu.g/ml.

DETD [0078] The following examples demonstrate various **allergen** -containing preparations, different routes of administration with the exemplary **allergen** PLA.sub.2, the major **allergen** of bee venom, and several means to measure the efficacy of this strategy. It is shown that direct delivery into the inguinal lymph node induces **allergen**-specific IgG2a titers more than 100 times more efficiently than intraperitoneal or subcutaneous injection. Among the IgG subclasses, IgG2a is known to be the most strictly T.sub.H1-dependent subclass, thus indicating a strong T.sub.H1 response against the **allergen**. Such a T.sub.H1 response is desired, since it counteracts the T.sub.H2 response, which is responsible for IgE production in allergic. . .

DETD Preparation of bee venom **allergen**

DETD Preparation of yellow jacket, hornet or wasp, venom **allergen**

DETD Purification of a peptide **allergen** vaccine

DETD [0083] PLA.sub.2 is a polypeptide (MW 19000) and is the major **allergen** in bee venom. It can be purified through reverse phase HPLC. Crude bee venom is dissolved in water at 10%. . .

DETD Preparation of an **allergen** vaccine from a purified extract

DETD [0084] PLA.sub.2, the major **allergen** component in bee venom, is purified using chromatography and can be purchased from commercial sources such as SIGMA. PLA.sub.2 is. . .

DETD Preparation of an **allergen** vaccine from a crude extract

DETD Preparation of an **allergen** vaccine from transfected cells

DETD Preparation of an **allergen** vaccine from a mixture of multiple allergens

DETD Preparation of a nucleic acid **allergen** vaccine

DETD . . . surfactant solution, or PLGA microsphere suspension to stimulate immunological response. The vaccine encapsulation is performed using various procedures such as **spray** drying, solvent evaporation, coacervation, precipitation, or blending. The process of encapsulating bee venom is described in Example 3.

DETD . . . facilitate placement of needle. Ultrasound is used to guide the needle and to monitor the lymph node, ensuring that the **allergen** is delivered into the lymph node.

DETD Administration of an **allergen** vaccine to a lymph node

DETD Schedule of administration of **allergen**

DETD [0093] Three 100 ml injections containing from 0.1 .mu.g to 10 .mu.g of **allergen** each are administered 1 to 2 weeks apart, with possible subsequent maintenance injections or boosters of from 0.1 .mu.g to 50 .mu.g of **allergen** in 100 ml injections, delivered periodically for a period of from several weeks to several years.

DETD Assay for efficacy of an **allergen** vaccine

DETD . . . To show that lymph node therapy results in modulation, diminution or elimination of allergic reaction, or lowered sensitivity to an **allergen**, correlative endpoints were reported which include measurement of IgG and IgE levels, changes in T.sub.H1/T.sub.H2 balance by cytokine or chemokine. . .

DETD [0095] According to data from an ongoing pilot study, there was no substantial increase in **allergen** specific IgE levels in patients vaccinated with honeybee venom vaccine. Patients in this study received 3 treatments, 2 weeks apart.. . .

DETD [0097] Two doses of the bee venom **allergen** PLA.sub.2 were injected into a mouse, and the IgG2a titer was quantitated over time. The PLA.sub.2 was injected with the. . .

DETD [0099] To induce specific IgG2a against PLA.sub.2 via the intraperitoneal or the subcutaneous route, 10 .mu.g of the **allergen** were required (FIG. 5B+F). However, the induced titers were only approximately 1:50 (FIG. 5B+F) and were thus only at a. . .

DETD [0100] Thus, intranodal delivery induced **allergen**-specific IgG2a antibody responses that are 20 times higher using only 1% of the **allergen** dose. Because side effects are directly proportional to the **allergen** dose, intranodal vaccination with allergens not only desensitizes more efficiently, but also likely produces fewer side effects.

DETD [0102] Two doses of the bee venom **allergen** PLA.sub.2 were injected into a mouse, and the IgE titer was quantitated over time. The PLA.sub.2 was injected with the. . .

DETD [0103] Intranodal injection of the **allergen** PLA.sub.2, although it induced IgG titers more efficiently, did not induce IgE titers more efficiently. Injection into a lymph node. . . .

DETD [0105] CD4 T-cell responses to the **allergen** are assayed in patients treated with intralymphatic bee venom. Before and after injection, whole blood is drawn and PBMC is. . .

DETD [0110] Whole blood is stimulated with **allergen**, stained by FACS, and gated on a CD123+, HLA-DR population with low side scatter (basophils). Detection is by CD63 (an. . .

DETD [0122] Skin testing may be performed by prick or by intradermal methods. Prick-puncture is performed by placing a drop of **allergen** and a drop of control solution 2 cm apart on the arm. A disposable hypodermic needle is passed through the. . . the solution wiped away after 1 minute. Intradermal tests are performed by injecting approximately 0.01 to 0.05 ml of the **allergen** into the

superficial layers of the skin, avoiding the subepidermal capillary bed. This should produce a small bubble approximately 2. . .

CLM What is claimed is:

1. A method of modulating an allergic response of an individual comprising the step of delivering an **allergen** directly into a lymph node of said individual, whereby the allergic response is modulated.

4. The method of claim 1 wherein the **allergen** is delivered to an antigen presenting cell within the lymph node.

5. The method of claim 1 wherein the **allergen** is delivered to an immune cell within the lymph node.

9. The method of claim 1 wherein the **allergen** is an extract or a purified substance.

10. The method of claim 1 wherein the **allergen** is selected from the group consisting of **allergenic** components of bee venom, wasp venom, fire ant venom, pollen, mold, anesthetics, serum, drugs, animals, animal dander, cockroaches, dust mites,. . .

11. The method of claim 10 wherein the **allergen** is a food **allergen** and said food **allergen** is selected from the group consisting of milk, fish, shellfish, peanuts, tree nuts, honey, fruits, eggs, soy, and wheat.

12. The method of claim 10 wherein the **allergen** is pollen and the pollen is selected from the group consisting of grass pollen, tree pollen, and herb pollen.

13. The method of claim 1 wherein the **allergen** is selected from the group consisting of animal dander, cockroach droppings, and dust mites.

14. The method of claim 1 wherein the **allergen** is selected from the group consisting of a recombinant protein and a synthesized peptide.

15. The method of claim 1 wherein the **allergen** is delivered to the lymph node by direct injection of a nucleic acid which encodes the **allergen**.

16. The method of claim 1 wherein the **allergen** is contained in an encapsulating material.

19. The method of claim 1 wherein the **allergen** further comprises a delivery substance.

20. The method of claim 1 wherein the **allergen** is accompanied by an adjuvant.

21. The method of claim 20 wherein the adjuvant is selected from the group consisting of alum, BCG, **aluminum** hydroxide, **aluminum** phosphate, calcium phosphate, a surface-active agent, a surface-active microparticle, a bacterial product, a chemokine, a cytokine, a hormone, chitosan, starch,. . .

. . . method of claim 1 wherein 1 to 5 doses of from about 0.01 .mu.g to about 10 .mu.g of the **allergen** are administered.

. . . 24. The method of claim 1 wherein a dose of from about 0.1 .mu.g to about 50 .mu.g of the **allergen** is administered.

25. The method of claim 1 wherein the **allergen** is delivered in fewer than about 10 doses.

26. The method of claim 1 wherein the **allergen** is delivered in from 1 to about 5 doses.

29. The method of claim 27 wherein detection of the reaction is by means of a controlled **allergen** exposure.

30. The method of claim 27 wherein the **allergen** is bee venom and wherein detection of the reaction is by means of a bee sting challenge.

34. The method of claim 31 wherein the property is a lowered sensitivity to the **allergen** or to a cross-reactive **allergenic** agent.

43. A kit comprising (1) a composition comprising (a) an **allergen** and (b) a physiologically acceptable carrier and (2) instructions for the method of claim 1.

L6 ANSWER 11 OF 21 USPATFULL

ACCESSION NUMBER: 2002:8749 USPATFULL

TITLE: Customized food selection, ordering and distribution system and method

INVENTOR(S): Froseth, Barrie R., Plymouth, MN, UNITED STATES
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Zietlow, Philip K., Wayzata, MN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002004749	A1	20020110
APPLICATION INFO.:	US 2001-780273	A1	20010209 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-181282P	20000209 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A., 1600 TCF TOWER, 121 SOUTH 8TH STREET, MINNEAPOLIS, MN, 55402

NUMBER OF CLAIMS: 83

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 40 Drawing Page(s)

LINE COUNT: 3282

DETD . . . colors from natural sources or certified colors for the effect of color. In one embodiment, the colors include dyes, certified **aluminum** lakes or colors derived from a natural source. Coloring agents may also be water-based or oil-based or dry. Coloring agents. . .

DETD . . . and packaging process include, but are not limited to, formula/product identification, sweetener application, sweetened base deposition, nutrient application, flavor application, **allergen** isolation, particulate addition and packaging.

DETD . . . filed on Jun. 16, 2000, are used. In another embodiment, nutrients 134 are applied in a conventional manner using a "**spray**-on" technique followed by a drying step.

DETD [0189] It will be appreciated by those skilled in the art, that not every reaction to a food is an **allergy**," although it is still a food that the consumer may wish or need to avoid for any number of reasons.. . .

DETD . . . be identified in any number of ways, such as by its primary ingredients 1201. The description can further include an **allergen** statement 1203, noting if the product contains any potential allergens. In another embodiment, content information is also provided with respect. . .

DETD . . . any suitable amount, such as a one serving, one day, one week, two week supply, and so forth. Additionally, each **household** may choose to order varied formulas for individual family members. Any additional product and/or ordering information can also be provided. . .

CLM What is claimed is:

35. The method of claim 33 wherein potential **allergen** additives are isolated in the custom finishing facility.

L6 ANSWER 12 OF 21 USPATFULL

ACCESSION NUMBER: 2001:229701 USPATFULL

TITLE: Treatment of inflammatory and autoimmune diseases

INVENTOR(S): Elliott, Peter J., Marlborough, MA, United States
Adams, Julian, Brookline, MA, United States
Plamondon, Louis, Watertown, MA, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001051654	A1	20011213
APPLICATION INFO.:	US 2001-770889	A1	20010126 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-393794, filed on 10 Sep 1999, ABANDONED Continuation-in-part of Ser. No. WO 1998-US20065, filed on 25 Sep 1998, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-61038P	19970925 (60)
	US 1997-69562P	19971212 (60)
	US 1998-74887P	19980217 (60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: HALE AND DORR, LLP, 60 STATE STREET, BOSTON, MA, 02109

NUMBER OF CLAIMS: 37

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 22 Drawing Page(s)

LINE COUNT: 2240

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

DETD . . . hyperresponsiveness, which is an exaggerated airway narrowing in response to many different stimuli, such as histamine, exercise, cold air, and **allergen**. Because of the episodic constriction of the bronchial tubes, treatment has been based partly on bronchodilation by .beta.-adrenergic agonist drugs.. . .

DETD . . . et al. Agents Actions, Suppl. 34 (1991) 34:359; Chapman, et al. Am. J. Resp. Crit. Care Med. (1996) 153:A219). The **allergen** -induced pulmonary eosinophilia in actively sensitized Brown Norway rats is inhibited by the steroid dexamethasone. Glucocorticoid therapy remains one of the. . . treatments available, and these drugs have been shown to reduce pulmonary eosinophilia in asthmatic patients (Holgate, et al. Int. Arch. **Allergy** Appl. Immunol. (1991) 94:210).

DETD [0057] When administered intratracheally at 1 hour prior to and 24 hours

and 48 hours after **allergen** challenge, 3b (0.1 or 0.3 mg/kg) inhibited eosinophilia in actively sensitized Brown Norway rats (FIGS. 3-4).

DETD . . . in combination with the glucocorticoid budesonide (0.1 mg/kg) at 1 hour prior to and 24 hours and 48 hours after **allergen** challenge inhibits eosinophilia in actively sensitized Brown Norway rats (FIGS. 5-6). Strikingly, neither drug was effective when administered alone at. . .

DETD Effect of Treatment With 3b on **Allergen**-Induced Pulmonary Leukocyte Accumulation in Actively Sensitized Brown Norway Rats

DETD . . . animals were actively sensitized over a 3-week period and were within the weight range 250-300 g at the time of **allergen** exposure. Food and water were provided ad libitum.

DETD [0112] Sensitization. Ovalbumin (OA; 10 .mu.g) mixed with **aluminum** hydroxide gel (10 mg) will be injected (0.5 mL, i.p.) into Brown Norway rats and repeated 7 and 14 days. . .

DETD [0114] Challenge. Following recovery, sensitized animals were restrained in plastic tubes and exposed (60 min) to an **aerosol** of OA (10 mg/mL) using a nose-only exposure system. Animals were sacrificed 72 hours later with pentobarbital (250 mg/kg i.p.).

DETD [0119] Compound 3b is effective in preventing leukocyte influx following **allergen** challenge in an animal model of asthma.

DETD Effect of Treatment with a Combination of 3b and Budesonide on **Allergen**-Induced Pulmonary Leukocyte Accumulation in Actively Sensitized Brown Norway Rats

DETD . . . animals were actively sensitized over a 3-week period and were within the weight range 250-300 g at the time of **allergen** exposure. Food and water were provided ad libitum.

DETD [0122] Sensitization. Ovalbumin (OA; 10 .mu.g) mixed with **aluminum** hydroxide gel (10 mg) will be injected (0.5 mL, i.p.) into Brown Norway rats and repeated 7 and 14 days. . .

DETD [0124] Challenge. Following recovery, sensitized animals were restrained in plastic tubes and exposed (60 min) to an **aerosol** of OA (10 mg/mL) using a nose-only exposure system. Animals were sacrificed 72 hours later with pentobarbital (250 mg/kg i.p.).

DETD [0129] The combination of compound 3b with the glucocorticoid budesonide is effective in preventing leukocyte influx following **allergen** challenge in an animal model of asthma at doses where neither drug alone has any effect.

DETD . . . these studies were asymptomatic. Mice were housed 5 per cage and rats 3 per cage in polycarbonate cages. Corn Cob **bedding** (AND-1005; Farmers Exchange, Framingham, MA) was used during the observation and study periods. Fluorescent lighting was controlled to automatically provide. . .

L6 ANSWER 13 OF 21 USPATFULL

ACCESSION NUMBER: 2001:36957 USPATFULL

TITLE: Polypeptide with reduced respiratory allergenicity

INVENTOR(S): Olsen, Arne Agerlin, Virum, Denmark
Hansen, Lars Bo, Herlev, Denmark
Beck, Thomas Christian, Birker.o slashed.d, Denmark

PATENT ASSIGNEE(S): Novo Nordisk A/S, Bagsvaerd, Denmark (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6201110	B1	20010313
APPLICATION INFO.:	US 2000-610751		20000706 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-405311, filed on 20 Sep 1999, now patented, Pat. No. US 6114509
Continuation of Ser. No. US 1998-150891, filed on 10 Sep 1998, now patented, Pat. No. US 5981718
Continuation of Ser. No. US 1997-836293, filed on 12 May 1997, now patented, Pat. No. US 5856451

Continuation of Ser. No. WO 1994-DK9500497, filed on 7 Dec 1994

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1994-1395	19941207
	DK 1994-1396	19941207
	DK 1994-1397	19941207
	DK 1994-1398	19941207
	DK 1994-1399	19941207
	DK 1994-1400	19941207
	DK 1994-1401	19941207

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Sayala, Chhaya D.
LEGAL REPRESENTATIVE: Lambiris, Esq., Elias J.
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 2239
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . relates to compositions comprising said polypeptides and further ingredients normally used in e.g. detergents, including dishwashing detergents and soap bars, **household** article, agrochemicals, personal care products, cosmetics, toiletries, oral and dermal pharmaceuticals, composition for treating textiles, and compositions used for manufacturing. . .

SUMM An increasing number of polypeptides, including proteins and enzymes, are being produced industrially by microorganisms for use in industry, **household**, food/feed, cosmetics or medicine etc. Said polypeptides may under certain circumstances inflict a potential risk to especially employees handling the. . .

SUMM . . . molecules bound to its surface, where they can remain available to interact with allergens for weeks. Upon contact with an **allergen** the surface bound IgE crossbinds the **allergen** , leading to the release of cytoplasmic granules into the proximity of the cell; thereby causing the inflammatoric allergic reaction.

SUMM Testing for **allergy** can either be performed as in vivo provocation, most commonly skin prick testing of by a number of in vitro. . . IgE levels in pheriperal blood. In spite of great efforts in the latter area the most reliable way to diagnose **allergy** is still the in vivo challenging, which again has different levels of sensitivity depending on the selected target organ.

SUMM For instance, intranasal challenge with **allergenic** proteins can provoke an allergic response even though skin tests and radioallergosorbent test (RAST) for specific serum IgE are negative. .

SUMM . . . the products, especially to avoid the formation of airborne material. Anyhow, these methods still represent a risk of dust or **aerosol** formation during handling and processing, with the subsequent risk of allergic sensitisation.

SUMM There will anyhow still be a risk of having polypeptide dust or dissolved polypeptide in **aerosol** form. Therefore some release of enzymes can occur leading to a possible sensitisation and subsequent allergic response.

SUMM . . . of protein engineering has been suggested to reduce the allergenicity of proteins through epitope mapping and subsequent change of the **allergenic** epitopes (see WO 92/10755 (Novo Nordisk A/S). This procedure usually requires a large investment in work and development.

SUMM WO 94/10191. (Novo Nordisk A/S) discloses a process for production of low **allergenic** protein, wherein the monomeric parent protein molecules are linked together to form an oligomer. This is done e.g.. by using. . .

SUMM The relevant prior art concern reducing the immunological response or hypersensitivity (**allergy**) of polypeptides, proteins and/or enzymes in applications for therapeutic purposes, which is relevant when presenting the allergens intradermally, intravenously or subcutaneously. However prior art do not concern presentation of allergens in industrial applications, which potentially may inflict **allergy** when inhaled, or in applications, where the end-user may be exposed to polypeptides, for instance, in the use of detergents,. . .

SUMM . . . compositions comprising said polypeptide and/or other enzymes/polypeptides and/or ingredients normally used in e.g. detergents, including dishwashing detergents and soap bars, **household** articles, agrochemicals, personal care products, including cleaning preparations e.g. for contact lenses, cosmetics, toiletries, oral and dermal pharmaceuticals, composition for. . .

DETD The terms "immunogen", "antigen" and "**allergen**" are defined below. The term "immunogen" is the wider term and includes "antigen" and "**allergen**".

DETD Further, an "**allergen**" may be defined as an antigen which may give rise to allergic sensitization or an allergic response by IgE antibodies. . .

DETD . . . type of antibody the IgG1A and IgG1B (see e.g. Prento, ATLA, 19, p. 8-14, 1991), which are responsible for their **allergenic** response to inhaled polypeptides including enzymes. Therefore when using the Dunkin Hartley animal model, the relative amount of IgG1A and. . .

DETD . . . the product has only negligible tendency to disintegrate, which would lead to the return of conditions that may cause an **allergenic** state.

DETD The composition may further comprise other polypeptides, proteins or enzymes and/or ingredients normally used in e.g. detergents, including soap bars, **household** articles, agrochemicals, personal care products, such as cleaning preparations e.g. for contact lenses; cosmetics, toiletries, oral and dermal pharmaceuticals, composition. . .

DETD . . . AUTOMATIC DISHWASHING

COMPOSITION

C.sub.12 -C.sub.14 fatty acid	0-0.5%
Block co-polymer surfactant	1.5-15.0%
Sodium citrate	0-12%
Sodium tripolyphosphate	0-15%
Sodium carbonate	0-8%
Aluminum tristearate	0-0.1%
Sodium cumene sulphonate	0-1.7%
Polyacrylate thickener	1.32-2.5%
Sodium polyacrylate	2.4-6.0%
Boric acid	0-4.0%
Sodium formate	0-0.45%
Calcium formate. . .	

DETD . . . shampoo, balsam, hair conditioners, hair waving compositions, hair dyeing compositions, hair tonic, hair liquid, hair cream, shampoo, hair rinse, hair **spray**.

CLM What is claimed is:

. . . shampoo, balsam, hair conditioners, hair waving compositions, hair dyeing compositions, hair tonic, hair liquid, hair cream, hair rinse, and hair **spray**.

L6 ANSWER 14 OF 21 USPATFULL

ACCESSION NUMBER: 2000:117890 USPATFULL

TITLE: Polypeptide with reduced allergenicity

INVENTOR(S): Olsen, Arne Agerlin, Virum, Denmark
Hansen, Lars Bo, Herlev, Denmark
Beck, Thomas Christian, Birker.o slashed.d, Denmark

PATENT ASSIGNEE(S): Novo Nordisk A/S, Bagsvard, Denmark (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6114509		20000905
APPLICATION INFO.:	US 1999-405311		19990920 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 1998-150891, filed on 10 Sep 1998, now patented, Pat. No. US 5981718 which is a continuation of Ser. No. US 1997-836293, filed on 12 May 1997, now patented, Pat. No. US 5856451 which is a continuation of Ser. No. WO 1995-DK497, filed on 7 Dec 1995

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1994-1395	19941207
	DK 1994-1396	19941207
	DK 1994-1397	19941207
	DK 1994-1398	19941207
	DK 1994-1399	19941207
	DK 1994-1400	19941207
	DK 1994-1401	19941207

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Sayala, Chhaya D.
LEGAL REPRESENTATIVE: Zelson, Esq., Steve T., Green, Esq., Reza
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 2255
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . relates to compositions comprising said polypeptides and further ingredients normally used in e.g. detergents, including dishwashing detergents and soap bars, **household** article, agrochemicals, personal care products, cosmetics, toiletries, oral and dermal pharmaceuticals, composition for treating textiles, and compositions used for manufacturing. . .

SUMM An increasing number of polypeptides, including proteins and enzymes, are being produced industrially by microorganisms for use in industry, **household**, food/feed, cosmetics or medicine etc. Said polypeptides may under certain circumstances inflict a potential risk to especially employees handling the. . .

SUMM . . . molecules bound to its surface, where they can remain available to interact with allergens for weeks. Upon contact with an **allergen** the surface bound IgE crossbinds the **allergen** , leading to the release of cytoplasmic granules into the proximity of the cell, thereby causing the inflammatoric allergic reaction.

SUMM Testing for **allergy** can either be performed as in vivo provocation, most commonly skin prick testing of by a number of in vitro. . . IgE levels in pheriperal blood. In spite of great efforts in the latter area the most reliable way to diagnose **allergy** is still the in vivo challenging, which again has different levels of sensitivity depending on the selected target organ.

SUMM For instance, intranasal challenge with **allergenic** proteins can provoke an allergic response even though skin tests and radioallergosorbent test (RAST) for specific serum IgE are negative. .

SUMM . . . the products, especially to avoid the formation of airborne material. Anyhow, these methods still represent a risk of dust or **aerosol** formation during handling and processing, with the subsequent risk of allergic sensitisation.

SUMM There will anyhow still be a risk of having polypeptide dust or dissolved polypeptide in **aerosol** form. Therefore some release of enzymes can occur leading to a possible sensitisation and subsequent allergic response.

SUMM . . . of protein engineering has been suggested to reduce the allergenicity of proteins through epitope mapping and subsequent change of the **allergenic** epitopes (see WO 92/10755 (Novo Nordisk A/S). This procedure usually requires a large investment in work and development.

SUMM WO 94/10191 (Novo Nordisk A/S) discloses a process for production of low **allergenic** protein, wherein the monomeric parent protein molecules are linked together to form an oligomer. This is done e.g. by using. . .

SUMM The relevant prior art concern reducing the immunological response or hypersensitivity (**allergy**) of polypeptides, proteins and/or enzymes in applications for therapeutic purposes, which is relevant when presenting the allergens intradermally, intravenously or subcutaneously. However prior art do not concern presentation of allergens in industrial applications, which potentially may inflict **allergy** when inhaled, or in applications, where the end-user may be exposed to polypeptides, for instance, in the use of detergents,. . .

SUMM . . . compositions comprising said polypeptide and/or other enzymes/polypeptides and/or ingredients normally used in e.g. detergents, including dishwashing detergents and soap bars, **household** articles, agrochemicals, personal care products, including cleaning preparations e.g. for contact lenses, cosmetics, toiletries, oral and dermal pharmaceuticals, composition for. . .

DETD The terms "immunogen", "antigen" and "**allergen**" are defined below. The term "immunogen" is the wider term and includes "antigen" and "**allergen**".

DETD Further, an "**allergen**" may be defined as an antigen which may give rise to allergic sensitization or an allergic response by IgE antibodies. . .

DETD . . . type of anti-body the IgG1A and IgG1B (see e.g. Prent.PHI., ATLA, 19, p. 8-14, 1991), which are responsible for their **allergenic** response to inhaled polypeptides including enzymes. Therefore when using the Dunkin Hartley animal model, the relative amount of IgG1A and. . .

DETD . . . the product has only negligible tendency to disintegrate, which would lead to the return of conditions that may cause an **allergenic** state.

DETD The composition may further comprise other polypeptides, proteins or enzymes and/or ingredients normally used in e.g. detergents, including soap bars, **household** articles, agrochemicals, personal care products, such as cleaning preparations e.g. for contact lenses, cosmetics, toiletries, oral and dermal pharmaceuticals, composition. . .

DETD . . . AUTOMATIC DISHWASHING COMPOSITION

C.sub.12 -C.sub.14 fatty acid 0-0.5%
Block co-polymer surfactant 1.5-15.0%
Sodium citrate 0-12%
Sodium tripolyphosphate 0-15%
Sodium carbonate 0-8%
Aluminium tristearate 0-0.1%
Sodium cumene sulphonate 0-1.7%
Polyacrylate thickener 1.32-2.5%
Sodium polyacrylate 2.4-6.0%
Boric acid 0-4.0%
Sodium formate 0-0.45%
Calcium formate. . .

DETD . . . shampoo, balsam, hair conditioners, hair waving compositions, hair dyeing compositions, hair tonic, hair liquid, hair cream, shampoo, hair rinse, hair **spray**.

L6 ANSWER 15 OF 21 USPATFULL

ACCESSION NUMBER: 2000:109335 USPATFULL
TITLE: Conjugation of polypeptides
INVENTOR(S): Bisgard-Frantzen, Henrik, Bagsvaerd, Denmark
Olsen, Arne Agerlin, Virum, Denmark
Prento, Annette, Ballerup, Denmark
PATENT ASSIGNEE(S): Novo Nordisk A/S, Bagsvaerd, Denmark (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6106828		20000822
APPLICATION INFO.:	US 1998-123787		19980728 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. WO 1997-DK51, filed on 7 Feb 1997

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1996-154	19960215

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Stole, Einar
LEGAL REPRESENTATIVE: Zelson, Esq., Steve T., Green, Esq., Reza
NUMBER OF CLAIMS: 40
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Figure(s); 3 Drawing Page(s)
LINE COUNT: 1823
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM . . . number of polypeptides, including proteins and enzymes, such as proteases, are being produced industrially by microorganisms for use in industry, **household**, food/feed, cosmetics or medicine etc. Said polypeptides may under certain circumstances inflict a potential risk to especially employees handling the. . .

SUMM . . . molecules bound to its surface, where they can remain available to interact with allergens for weeks. Upon contact with an **allergen** the surface bound IgE crossbinds the **allergen** , leading to the release of cytoplasmic granules into the proximity of the cell, thereby causing the inflammatoric allergic reaction.

SUMM Testing for **allergy** can either be performed as in vivo provocation, most commonly skin prick testing of by a number of in vitro. . . levels in pheriperal blood. In spite of the great efforts in the latter area the most reliable way to diagnose **allergy** is still the in vivo challenging, which again has different levels of sensitivity depending on the selected target organ.

SUMM For instance, intranasal challenge with **allergenic** proteins can provoke an allergic response even though skin tests and radio-allergosorbent test (RAST) for specific serum IgE are negative. .

SUMM . . . the products, especially to avoid the formation of airborne material. Anyhow, these methods still represent a risk of dust or **aerosol** formation during handling and processing, with the subsequent risk of allergic sensitisation.

SUMM There will, anyhow, still be a risk of having polypeptide dust or dissolved polypeptide in **aerosol** form. Therefore some release of enzymes can occur leading to a possible sensitisation and subsequent allergic response.

SUMM . . . of protein engineering has been suggested to reduce the allergenicity of proteins through epitope mapping and subsequent change of the **allergenic** epitopes (see WO 92/10755 (Novo Nordisk A/S). This procedure usually requires a large investment in work and development.

DETD An "**allergen**" is an antigen which gives rise to allergic sensitization or an allergic response due to the formation of IgE antibodies. . .

DETD . . . of antibody the IgG1A and IgG1B (see e.g. Prent.o slashed.,

ATLA, 19, p. 8-14, 1991), which are responsible for their **allergenic** response to inhaled polypeptides including enzymes. Therefore, when using the Dunkin Hartley animal model, the relative amount of IgG1A and. . .

DETD . . . compositions may further comprise polypeptides, such as proteins and/or enzymes and/or ingredients normally used in e.g. products such as detergents, **household** article products, agrochemicals, personal care products, cosmetics, toiletries, oral-, skin and hair care products, composition use for processing textiles, compositions. . .

DETD . . . compositions may further comprise polypeptides, such as proteins and/or enzymes and/or ingredients normally used in e.g. detergents, including soap bars, **household** articles, agrochemicals, personal care products, such as cleaning preparations e.g. for contact lenses, cosmetics, toiletries, oral and dermal pharmaceuticals, composition. . .

DETD

9) THIXOTROPIC LIQUID AUTOMATIC DISHWASHING COMPOSITION

C.sub.12 -C.sub.14 fatty acid	0-0.5%
Block co-polymer surfactant	1.5-15.0%
Sodium citrate	0-12%
Sodium tripolyphosphate	0-15%
Sodium carbonate	0-8%
Aluminium tristearate	0-0.1%
Sodium cumene sulphonate	0-1.7%
Polyacrylate thickener	1.32-2.5%
Sodium polyacrylate	2.4-6.0%
Boric acid	0-4.0%
Sodium formate	0-0.45%
Calcium formate	0-0.2%
Sodium n-decydiphenyl oxide disulphonate	0-4.0%
Monoethanol amine (MEA)	
. . .	
DETD . . . Protease/Lipase	0-5 0-5
Water	Balance Balance

Ingredients	Examples	% Water-in-oil/ Oil-in-water type	type
Skin cream (water-in-oil type and oil-in-water type)			
Emulsifiers	Sorbitane sesquioieate	3-5	--
	Aluminum stearate	1-2	--
	Triethanolamine stearate	--	1-2
	Cetyl/Stearyl alcohol	--	1-3
	polyglycol ethers		

Fatty derivatives
Isopropyl palmitate
1-5 0-3
Cetyl/Stearyl alcohol

. . .

DETD . . . shampoo, balsam, hair conditioners, hair waving compositions, hair dyeing compositions, hair tonic, hair liquid, hair cream, shampoo, hair rinse, hair **spray**.

CLM What is claimed:

. . . claim 26, wherein the composition further comprises at least one of polypeptides, proteins enzymes and ingredients normally used in detergents, **household** articles, agrochemicals, personal care products, cosmetics, toiletries, pharmaceuticals, compositions for treating textiles, compositions for cleaning hard surfaces, or compositions used. . .

L6 ANSWER 16 OF 21 USPATFULL

ACCESSION NUMBER:	1999:142125 USPATFULL
TITLE:	Polypeptide with reduced allergenicity
INVENTOR(S):	Olsen, Arne Agerlin, Virum, Denmark Hansen, Lars Bo, Herlev, Denmark Beck, Thomas Christian, Birker.o slashed.d, Denmark
PATENT ASSIGNEE(S):	Novo Nordisk A/S, Bagsvaerd, Denmark (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5981718		19991109
APPLICATION INFO.:	US 1998-150891		19980910 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1997-836293, filed on 12 May 1997, now patented, Pat. No. US 5856451 which is a continuation of Ser. No. WO 1995-DK497, filed on 7 Dec 1995		

	NUMBER	DATE
PRIORITY INFORMATION:	DK 1994-1395	19941207
	DK 1994-1396	19941207
	DK 1994-1397	19941207
	DK 1994-1398	19941207
	DK 1994-1399	19941207
	DK 1994-1400	19941207
	DK 1994-1401	19941207

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Sayala, Chhaya D.
LEGAL REPRESENTATIVE:	Zelson, Esq., Steve T., Esq., Reza Green
NUMBER OF CLAIMS:	12
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT:	2257

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . relates to compositions comprising said polypeptides and fruther ingredients normally used in e.g. detergents, including dishwashing detergents and soap bars, **household** article, agrochemicals, personal care products, cosmetics, toiletries, oral and dermal pharmaceuticals, composition for treating textiles, and compositions used for manufacturing. . .

SUMM An increasing number of polypeptides, including proteins and enzymes, are being produced industrially by microorganisms for use in industry, **household**, food/feed, cosmetics or medicine etc. Said polypeptides may under certain circumstances inflict a potential risk to especially employees handling the. . .

SUMM . . . molecules bound to its surface, where they can remain available

to interact with allergens for weeks. Upon contact with an **allergen** the surface bound IgE crossbinds the **allergen** , leading to the release of cytoplasmic granules into the proximity of the cell, thereby causing the inflammatoric allergic reaction.

SUMM Testing for **allergy** can either be performed as in vivo provocation, most commonly skin prick testing of by a number of in vitro. . . IgE levels in pheriperal blood. In spite of great efforts in the latter area the most reliable way to diagnose **allergy** is still the in vivo challenging, which again has different levels of sensitivity depending on the selected target organ.

SUMM For instance, intranasal challenge with **allergenic** proteins can provoke an allergic response even though skin tests and radioallergosorbent test (RAST) for specific serum IgE are negative. . .

SUMM . . . the products, especially to avoid the formation of airborne material. Anyhow, these methods still represent a risk of dust or **aerosol** formation during handling and processing, with the subsequent risk of allergic sensitisation.

SUMM There will anyhow still be a risk of having polypeptide dust or dissolved polypeptide in **aerosol** form. Therefore some release of enzymes can occur leading to a possible sensitisation and subsequent allergic response.

SUMM . . . of protein engineering has been suggested to reduce the allergenicity of proteins through epitope mapping and subsequent change of the **allergenic** epitopes (see WO 92/10755 (Novo Nordisk A/S). This procedure usually requires a large investment in work and development.

SUMM WO 94/10191 (Novo Nordisk A/S) discloses a process for production of low **allergenic** protein, wherein the monomeric parent protein molecules are linked together to form an oligomer. This is done e.g. by using. . .

SUMM The relevant prior art concern reducing the immunological response or hypersensitivity (**allergy**) of polypeptides, proteins and/or enzymes in applications for therapeutic purposes, which is relevant when presenting the allergens intradermally, intravenously or subcutaneously. However prior art do not concern presentation of allergens in industrial applications, which potentially may inflict **allergy** when inhaled, or in applications, where the end-user may be exposed to polypeptides, for instance, in the use of detergents,. . .

SUMM . . . compositions comprising said polypeptide and/or other enzymes/polypeptides and/or ingredients normally used in e.g. detergents, including dishwashing detergents and soap bars, **household** articles, agrochemicals, personal care products, including cleaning preparations e.g. for contact lenses, cosmetics, toiletries, oral and dermal pharmaceuticals, composition for. . .

DETD The terms "immunogen", "antigen" and "**allergen**" are defined below. The term "immunogen" is the wider term and includes "antigen" and "**allergen**".

DETD Further, an "**allergen**" may be defined as an antigen which may give rise to allergic sensitization or an allergic response by IgE antibodies. . .

DETD . . . of anti-body the IgG1A and IgG1B (see e.g. Prent.o slashed., ATLA, 19, p. 8-14, 1991), which are responsible for their **allergenic** response to inhaled polypeptides including enzymes. Therefore when using the Dunkin Hartley animal model, the relative amount of IgG1A and. . .

DETD . . . the product has only negligible tendency to disintegrate, which would lead to the return of conditions that may cause an **allergenic** state.

DETD The composition may further comprise other polypeptides, proteins or enzymes and/or ingredients normally used in e.g. detergents, including soap bars, **household** articles, agrochemicals, personal care products, such as cleaning preparations e.g. for contact lenses, cosmetics, toiletries, oral and dermal pharmaceuticals, composition. .

DETD . . . AUTOMATIC DISHWASHING
COMPOSITION

C.sub.12 -C.sub.14 fatty acid
0-0.5%
Block co-polymer surfactant 1.5-15.0%
Sodium citrate 0-12%
Sodium tripolyphosphate 0-15%
Sodium carbonate 0-8%
Aluminium tristearate 0-0.1%
Sodium cumene sulphonate 0-1.7%
Polyacrylate thickener 1.32-2.5%
Sodium polyacrylate 2.4-6.0%
Boric acid 0-4.0%
Sodium formate 0-0.45%
Calcium formate. . .

DETD . . . shampoo, balsam, hair conditioners, hair waving compositions, hair dyeing compositions, hair tonic, hair liquid, hair cream, shampoo, hair rinse, hair **spray**.

CLM What is claimed is:

. . . shampoo, balsam, hair conditioners, hair waving compositions, hair dyeing compositions, hair tonic, hair liquid, hair cream, hair rinse, and hair **spray**.

L6 ANSWER 17 OF 21 USPATFULL

ACCESSION NUMBER:	1999:1779 USPATFULL			
TITLE:	Method for reducing respiratory allergenicity			
INVENTOR(S):	Olsen, Arne Agerlin, Virum, Denmark Hansen, Lars Bo, Herlev, Denmark Beck, Thomas Christian, Birker.o slashed.d, Denmark			
PATENT ASSIGNEE(S):	Novo Nordisk A/S, Bagsvaerd, Denmark (non-U.S. corporation)			
	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5856451		19990105	
	WO 9617929		19960613	
APPLICATION INFO.:	US 1997-836293		19970512	(8)
	WO 1995-DK497		19951207	
			19970512	PCT 371 date
			19970512	PCT 102(e) date
	NUMBER		DATE	
PRIORITY INFORMATION:	DK 1994-1395		19941207	
	DK 1994-1396		19941207	
	DK 1994-1397		19941207	
	DK 1994-1398		19941207	
	DK 1994-1399		19941207	
	DK 1994-1400		19941207	
	DK 1994-1401		19941207	
DOCUMENT TYPE:	Utility			
FILE SEGMENT:	Granted			
PRIMARY EXAMINER:	Sayala, Chhaya D.			
LEGAL REPRESENTATIVE:	Zelson, Esq., Steve T., Agris, Esq., Cheryl H.			
NUMBER OF CLAIMS:	37			
EXEMPLARY CLAIM:	1			
NUMBER OF DRAWINGS:	5 Drawing Figure(s); 5 Drawing Page(s)			
LINE COUNT:	2323			

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB . . . relates to compositions comprising said polypeptides and further ingredients normally used in e.g. detergents, including

dishwashing detergents and soap bars, **household** article, agrochemicals, personal care products, cosmetics, toiletries, oral and dermal pharmaceuticals, composition for treating textiles, and compositions used for manufacturing. . .

SUMM An increasing number of polypeptides, including proteins and enzymes, are being produced industrially by microorganisms for use in industry, **household**, food/feed, cosmetics or medicine etc. Said polypeptides may under certain circumstances inflict a potential risk to especially employees handling the. . .

SUMM . . . molecules bound to its surface, where they can remain available to interact with allergens for weeks. Upon contact with an **allergen** the surface bound IgE crossbinds the **allergen** , leading to the release of cytoplasmic granules into the proximity of the cell, thereby causing the inflammatoric allergic reaction.

SUMM Testing for **allergy** can either be performed as in vivo provocation, most commonly skin prick testing of by a number of in vitro. . . IgE levels in pheriperal blood. In spite of great efforts in the latter area the most reliable way to diagnose **allergy** is still the in vivo challenging, which again has different levels of sensitivity depending on the selected target organ.

SUMM For instance, intranasal challenge with **allergenic** proteins can provoke an allergic response even though skin tests and radioallergosorbent test (RAST) for specific serum IgE are negative. .

SUMM . . . the products, especially to avoid the formation of airborne material. Anyhow, these methods still represent a risk of dust or **aerosol** formation during handling and processing, with the subsequent risk of allergic sensitisation.

SUMM There will anyhow still be a risk of having polypeptide dust or dissolved polypeptide in **aerosol** form. Therefore some release of enzymes can occur leading to a possible sensitisation and subsequent allergic response.

SUMM . . . of protein engineering has been suggested to reduce the allergenicity of proteins through epitope mapping and subsequent change of the **allergenic** epitopes (see WO 92/10755 (Novo Nordisk A/S). This procedure usually requires a large investment in work and development.

SUMM . . . (bioavailability) via the respiratory tract to the blood stream. WO94/10191 (Novo Nordisk A/S) discloses a process for production of low **allergenic** protein, wherein the monomeric parent protein molecules are linked together to form an oligomer. This is done e.g. by using. . .

SUMM The relevant prior art concern reducing the immunological response or hypersensitivity (**allergy**) of polypeptides, proteins and/or enzymes in applications for therapeutic purposes, which is relevant when presenting the allergens intradermally, intravenously or subcutaneously. However prior art do not concern presentation of allergens in industrial applications, which potentially may inflict **allergy** when inhaled, or in applications, where the end-user may be exposed to polypeptides, for instance, in the use of detergents,. . .

SUMM . . . compositions comprising said polypeptide and/or other enzymes/polypeptides and/or ingredients normally used in e.g. detergents, including dishwashing detergents and soap bars, **household** articles, agrochemicals, personal care products, including cleaning preparations e.g. for contact lenses, cosmetics, toiletries, oral and dermal pharmaceuticals, composition for. . .

DETD The terms "immunogen", "antigen" and "**allergen**" are defined below. The term "immunogen" is the wider term and includes "antigen" and "**allergen**".

DETD Further, an "**allergen**" may be defined as an antigen which may give rise to allergic sensitization or an allergic response by IgE antibodies. . .

DETD . . . of antibody the IgG1A and IgG1B (see e.g. Prent.o slashed., ATLA, 19, p. 8-14, 1991), which are responsible for their

allergenic response to inhaled polypeptides including enzymes. Therefore when using the Dunkin Hartley animal model, the relative amount of IgG1A and. . .

DETD . . . the product has only negligible tendency to disintegrate, which would lead to the return of conditions that may cause an **allergenic** state.

DETD The composition may further comprise other polypeptides, proteins or enzymes and/or ingredients normally used in e.g. detergents, including soap bars, **household** articles, agrochemicals, personal care products, such as cleaning preparations e.g. for contact lenses, cosmetics, toiletries, oral and dermal pharmaceuticals, composition. .

DETD

9) THIXOTROPIC LIQUID AUTOMATIC DISHWASHING COMPOSITION

C.sub.12 -C.sub.14 fatty acid	0-0.5%
Block co-polymer surfactant	1.5-15.0%
Sodium citrate	0-12%
Sodium tripolyphosphate	0-15%
Sodium carbonate	0-8%
Aluminium tristearate	0-0.1%
Sodium cumene sulphonate	0-1.7%
Polyacrylate thickener	1.32-2.5%
Sodium polyacrylate	2.4-6.0%
Boric acid	0-4.0%
Sodium formate	0-0.45%
Calcium formate	0-0.2%
Sodium n-decydiphenyl oxide disulphonate	0-4.0%
Monoethanol amine (MEA). . .	

DETD . . . shampoo, balsam, hair conditioners, hair waving compositions, hair dyeing compositions, hair tonic, hair liquid, hair cream, shampoo, hair rinse, hair **spray**.

CLM What is claimed is:

. . . balsam, hair conditioners, hair waving compositions, hair dyeing compositions, hair tonic, hair liquid, hair cream, shampoo, hair rinse, and hair **spray**.

L6 ANSWER 18 OF 21 USPATFULL

ACCESSION NUMBER:	1998:66279 USPATFULL
TITLE:	Self reproducing fundamental fabricating machine system
INVENTOR(S):	Collins, Charles M., 10800 Oak Wilds Ct., Burke, VA, United States 22015

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5764518		19980609
APPLICATION INFO.:	US 1996-757005		19961125 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1994-364926, filed on 28 Dec 1994, now patented, Pat. No. US 5659477		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Ruggiero, Joseph		
LEGAL REPRESENTATIVE:	Kohlmann, Henry G.		
NUMBER OF CLAIMS:	75		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	86 Drawing Figure(s); 30 Drawing Page(s)		
LINE COUNT:	3135		

DETD . . . merge, blend, coalesce, mix, stir, whip, brew, convect, cook,

ferment, toss, chop, grate, broil, fry, bake, pressure cook, poach, gel, **spray**, attach, sturdy, bind, join, nail, couple, bolt, sway, abut, pat, pet, score, mark, brand, imprint, plier, clasp, bore, wind, squash,. . . index, log, dissect, carve, print, engrave, etch, stamp, dial, display, exhibit, program, present, record, arrange, determine temperature, determine humidity, determine **allergen** level, determine barometric pressure, determine visibility, determine wind velocity, determine rainfall amounts, determine ozone levels, determine varied pollution levels, determine. . .

DETD Similarly, houses and households can be built entirely by F-Units 10 and of puzzle pieces 20, 22 cut with a **household** laser residing permanently on site at the house if wanted. After delivery of sheet material, computerized systems can cut and. . . remodeling of the house including automated yard work. Dishes put away dirty would be scoured where they are placed and **furniture** could be changed or replaced at programming will; as well as pictures, statues, ornaments, fixtures, etc. all by prearranged programming. . .

DETD . . . Y1, Z1), a type designation (such as plastic or diamond or the like in the case of non-conductive medium or **aluminum**, and copper for conductive medium and iron in the case of magnetic medium) and its size (relative to other puzzle. . .

L6 ANSWER 19 OF 21 USPATFULL

ACCESSION NUMBER:	96:36286 USPATFULL
TITLE:	Methods for the selective suppression of an immune response to dust mite der Pi
INVENTOR(S):	Byers, Vera S., San Francisco, CA, United States Baldwin, Robert W., Long Eaton, England
PATENT ASSIGNEE(S):	Allergene, Inc., San Mateo, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5512283		19960430
APPLICATION INFO.:	US 1993-123746		19930916 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1993-11050, filed on 29 Jan 1993, now abandoned And Ser. No. US 1992-849222, filed on 10 Mar 1992, now abandoned which is a continuation-in-part of Ser. No. US 1990-549184, filed on 6 Jul 1990, now abandoned

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Adams, Donald E.
LEGAL REPRESENTATIVE:	Pennie & Edmonds
NUMBER OF CLAIMS:	10
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	47 Drawing Figure(s); 28 Drawing Page(s)
LINE COUNT:	2757

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

SUMM 5.4.1 Demonstration that the selected monoclonal antibody recognizes a human IgE immunodominant protein in the **allergen** mixture in those cases in which the **allergen** is a mixture rather than a single component

SUMM 5.4.3 Demonstration that the selected monoclonal antibody stimulates an anti-idiotype specificity similar to that induced in humans, including those receiving **allergen** specific immunotherapy

SUMM 5.4.4 Demonstration that treatment of animals with the Mab significantly down-regulates the immune response against the **allergen**

SUMM 8.4.3 **Aerosol**-sensitized mouse model

SUMM 9.1.1 Sensitization with Aerosolized Dust Mite **Allergen**

SUMM 10. Example: Use of anti-urushiol monoclonal antibodies (AB1) to down regulate the T cell response to poison oak and ivy **allergy**

SUMM . . . in the generation of allergic diseases (Romagnani, 1992, Immunol. Today 13:379-380; O'Hehir et al., 1991, Ann. Review Immunol.

9:67-95). Following **allergen** processing and presentation by antigen presenting cells (APA) they function as helper T cells in cooperating with B cells to produce antibodies such as immunoglobulin IgE. Receptors on mast cells and basophils bind **allergen** specific IgE. Subsequent exposure to **allergen** results in the release of inflammatory molecules which cause allergic symptoms.

SUMM **Allergen** sensitized T lymphocytes also function directly in initiating allergic responses. This includes the release of cytokines such as interleukin 5,. . .

SUMM Over the last several years, evidence of the strong involvement of dust mite antigen (DMA) **allergy** in allergic rhinitis and especially asthma has strengthened. In a recent study (Gergen and Terkeltaub, 1992, J. All. Clin. Immunol.. . .

SUMM . . . dust mite, Dermatophagoides pteronyssinus (Der p) and Dermatophagoides farinae (Der f). A range of 30 proteins have been identified in **allergenic** preparations derived from each species; but only two, group 1, Mw 25,000, and group 11, Mw 14,000 are recognized as. . .

SUMM . . . more than 5000 species of grasses are important allergens since many of the grasses do not produce abundant pollen. Important **allergenic** grasses include Rye, Timothy, Kentucky blue and June. Many of the allergens of different species cross react antigenically, and show. . .

SUMM . . . naive animals by T lymphocytes. Human and animal studies have identified the specificity of the T cell reaction against the **allergen**. Both the specificity and antigenicity of the compounds reside primarily in the common catechol structure. The immunologic reactions seen with. . .

SUMM T lymphocytes, predominantly the CD4+ subset (Th2), play a central role in the initiation and maintenance of aero-**allergen**-mediated immune responses (Peltz, 1991; O'Hehir et al., 1991; Romagnani, 1992). Following exposure of susceptible subjects, T lymphocytes collaborate with B. . .

SUMM . . . diseases including asthma, allergic rhinitis, as well as urushiol dermatitis has been undertaken for many years using hyposensitization with crude **allergen** extracts. This form of immunotherapy is effective in many patients and can provide lasting benefit even after immunotherapy has been. . . tolerance to mice (Stampf et al., 1990, J. Invest Derm.). However, there are numerous difficulties with this form of treatment. **Allergen** extracts are crude, so that treatment schedules are not able to be standardized. Also, prolonged courses of treatment result in. . .

SUMM . . . during hyposensitization is an initial increase in IgE antibodies, followed by a decrease. Concomitantly, there is an increase in the **allergen** specific IgG (Creticos, PS, JAMA 268:2834-2839). When the specificity of the response is investigated carefully, it is found that auto-anti-idiotypic antibodies develop (Gurka et al., 1988, Ann. **Allergy** 61:239-243). This has been shown to be the case in rye grass hyposensitization as well. Clinically, anti-idiotypic antibodies are elevated. . .

SUMM . . . et al., 1991, Can. Res. 51:5425-5429). Consistent with these findings, vaccination with a monoclonal Ab2 directed against Lol p I **allergen** produced up-regulation of the IgE and IgG anti-Lol p I antibodies (Boutin et al., 1991, J. All. Clin. Immunol. 87. . .

DRWD FIG. 20 shows (specific suppression of anti-**allergen** antibodies by administration of idiotypic antibody). Groups of mice were immunized by i.p. injection of various amounts (0.01-10 .mu.g) of. . .

DETD In preferred embodiments, antibody and antibody-derived molecules and TCRs are directed against dominant epitopes of the **allergen** of interest. Allergens include haptens, such as urushiol and certain pharmaceuticals, as well as **allergenic** proteins such as those in dust mite allergens, mold spores, and pollen.

DETD . . . molecule is an antibody, TCR, or antibody- or TCR-derived molecule which binds to or reacts with a primary immunogen or

allergen. An Ab2 or anti-idiotypic molecule is an antibody, TCR, or antibody- or TCR- derived molecule which binds to or reacts. . . secondary antigen in that it can produce an anti-idiotypic response. Of particular relevance are Ab2 molecules which bind to the **allergen** binding site of the Ab1.

DETD . . . and a heterologous polypeptide. Antibody-derived molecules of the invention contain at least a binding domain of an Ab1 against the **allergen** of interest. The binding domain includes the complementarity-determining regions (CDRs) of the Ab1, joined to a framework region (FR). The. . .

DETD . . . may be employed analogously to an antibody-derived Ab1. A TCR which contains a binding site for an epitope of an **allergen** of interest is capable of functioning in a manner similar to an antibody-derived Ab1. A "TCR-derived" molecule refers to a. . . such as serum albumin. For convenience, references herein to "Ab1s" includes TCR-derived molecules which bind to an epitope of the **allergen** of interest, unless the context precludes this meaning.

DETD . . . proteins and cytokines or lymphokines. "Purified" antibody or TCR-derived molecules are depleted of molecules which do not bind to the **allergen** of interest; in particular, purified Ab1s are depleted of Ab2s and of Ab1s directed to other antigens.

DETD A particular preferred embodiment comprises Ab1 antibody--or TCR-derived molecules which are substantially free of the **allergen** to which the Ab1 molecule binds. "Substantially free" means that the ratio of the number of antibody binding epitopes is. . .

DETD One category of exogenous antigens of interest is referred to as environmental allergens. As used herein, the term "environmental **allergen**" refers to an **allergen** to which an animal, including a human, is exposed by external contact, and includes dermal or conjunctival contact and inhalation. . .

DETD . . . such as ragweed and plantain) and monocotyledonous angiosperms (e.g., the grasses). The methods presented here are applicable to any pollen **allergen**. Other allergens include dust mite antigens consisting of proteins from the body and feces of the dust mite, found in house dust, mattresses and **carpet**, but capable of becoming air-borne. They also include molds such as alternaria. The methods presented here are applicable to any. . .

DETD . . . to cause food allergies. Examples are proteins of wheat and related cereal grains, and of legumes such as peanuts. The **allergenic** proteins of wheat and peanuts have been isolated. Ab1s against **allergenic** wheat and peanut proteins are particular embodiments of one aspect of the invention, e.g., compositions comprising Ab1s against food allergens.. . . .

DETD . . . Compounds and methods of the present invention provide for downregulation of IgG reactions, as seen with the ricin A chain **allergen** which can be useful as a component of cytotoxic drugs. Another example of an immunogenic protein drug is provided by. . .

DETD . . . be life-threatening. Administration of a composition comprising an Ab1-derived molecule against a .beta.-lactam antibiotic is useful for suppression of antibiotic **allergy**.

DETD For similar reasons, fragments of the Ab1 are active, provided that the desired **allergen** epitope binding domain is present. Any of the common antibody fragments which retain binding specificity may be used. Also, cloned. . .

DETD . . . domain is joined to other proteins or protein domains also are active immunoregulators. The chimeric protein "partner" to which the **allergen** binding domain is joined may be selected from a great variety of sequences. In some cases the binding domain from. . .

DETD In particular instances, a chimeric partner may be chosen because it imparts desirable solubility or localization characteristics. For example, an **allergen** binding domain may be joined to a collagen domain of the target species. The resulting chimera remains localized at the. . .

DETD Several criteria may be used to select a preferred monoclonal antibody

against an **allergen** to be downregulated. These include:

DETD 5.4.1 Demonstration that the selected monoclonal antibody recognizes a human IgE immunodominant protein in the **allergen** mixture in those cases in which the **allergen** is a mixture rather than a single component

DETD . . . is subjected to SDS-PAGE to separate the proteins by molecular weight. Then, sera from patients clinically reactive to the given **allergen** mixture are overlaid onto the separated proteins, which have been electrotransferred onto nitrocellulose paper. After incubation, the strips are developed. . .

DETD 5.4.3 Demonstration that the selected monoclonal antibody stimulates an anti-idiotype specificity similar to that induced in humans, including those receiving **allergen** specific immunotherapy

DETD 5.4.4 Demonstration that treatment of animals with the Mab significantly down-regulates the immune response against the **allergen**

DETD . . . down-regulate the immune response may be tested. In this case, the animal may be sensitized either by injection of the **allergen** in adjuvant, without adjuvant, or in the aerosolized form. The candidate monoclonal antibodie(s) are then injected before or at various. . .

DETD . . . is subjected to SDS-PAGE to separate the proteins by molecular weight. Then, sera from patients clinically reactive to the given **allergen** mixture are overlayed onto the separated proteins, which have been electrotransferred onto nitrocellulose paper. After incubation, the strips are developed. . .

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DETD Obviously, if the clinically important **allergen** has only one protein, such as ovalbumin in chicken egg white or parvalbumin in cod fish, both of which induce an IgE reaction, or casein in cow's milk which induces an IgG reaction, or if the clinically significant **allergen** has only one epitope such as urushiol which induces a T cell response, this selection procedure may be shortened.

DETD Dust mite **allergy** is responsible for a range of allergic diseases, principally asthma, allergic rhinitis and probably atopic dermatitis. Although these diseases can. . . by a variety of other allergens, such as pollens, dust mite ranks as one of the top three offenders. The **allergy** is caused by exposure to mites of the genus Dermatophagoides, particularly Dermatophagoides pteronyssinus (Der p) and Dermatophagoides farinae (Der f).. . .

DETD . . . is detected by mixing .sup.125 I labelled Mab 2C7 with antiserum before addition to microliter plates coated with Der p **allergen**. Binding of 2C7 is inhibited only by anti-idiotypic antibody to 2C7. Binding of 4C1 to Der p I is only. . .

DETD TABLE 1

Mab	Isotype	**Allergen** Mw	
1102/H11	IgG1	Der pI	24000
1107/2B11	IgG1	Der pI	27000
1111/A2	IgG1	Der pI	24000
1114/1F7	IgG2a	Der pI	24000
1114/2F10	IgG2a	Der pII. . .	
DETD		. . . II	
2H5	0.70	0.09	
6D6*	0.60	0.07	
337**	0.09	0.04	

.sup.1 ELISA plate wells uncoated

*Mab provided by Dr. M. Chapman, Division of **Allergy** and Clinical Immunology, University of Virginia, Charlottesville, Virginia, USA

**Control Mab anticarcinoembryonic antigen provided by Prof. R. W. Baldwin, Cancer. . .

DETD . . . to Der p I (and Der p II) a useful criterion is that both antibody species react with the same **allergen** epitope. Also the dust mite **allergen** epitope preferably should be an immunodominant component accounting for a major component i.e., 25% or greater, preferably at least 40%,. . . clinical utility as a therapeutic, a preferred monoclonal antibody should exhibit greater than 40% inhibition of IgE binding to the **allergen** in a majority of human subjects. This has been demonstrated with a range of anti-Der p I Mab by experiments. . .

DETD . . . antibody, which indicates that stimulation of anti-idiotypic immune responses to Mab 2C7 is appropriate for immunoregulation of Der p I **allergy**

DETD . . . staining with Mab (Thompson et al., Immunol., 64:311-314, 1988; Chapman et al., J. Immunol., 139:1479-1484, 1987; Platts-Mills and Chapman, J. **Allergy** Clin. Immunol., 80:755-775, 1987) so as to define the molecular weights of the dust mite allergens bound by each Mab.

DETD . . . stimulating lymphocytes involved injecting PBL, Ton-Ly etc into severe combined immune deficiency (SCID) mice and stimulation of injected mice with **allergen** preparations such as the whole dust mite extracts (DMA) or purified proteins such as Der p I and Der p. . . treated with immunological adjuvants such as bacillus Calmette Guerin (BCG) or by combining immunogen preparations (Der p I/II etc) with **aluminium** hydroxide gel, variously described as adjuvant alum.

DETD Table 5 lists representative human anti-dust mite **allergen** monoclonal antibodies generated by fusion of human lymphocytes with human-mouse heteromycloma ELAI. Lymphocytes were obtained from human peripheral blood (hybridomas. . .

DETD . . . resulting from exposure to dust mite allergens is clearly established (Ishizaka, Ann. Rev. Immunol., 2:159-182, 1984; O'Hehir et al., Int. **Allergy** Appl. Immunol., 88.:170-172, 1989; Frew and Kay, J. Immunol , 141:4158, 1988; Alexander et al., Lancet, 339:324-328, 1992).

DETD . . . .mu.g to 1 mg given up to 5 times. This response is further enhanced when Mab H11 is administered with **aluminum** hydroxide as adjuvant (ALHYDROGEL 85; Superphos Biosector a/s Vedbaek, Denmark).

DETD . . . skin test positivity to the antigen, and clinical symptoms indicating ongoing exposure. Alternatively subjects may be deliberately exposed to the **allergen** prior to donation of the tissues.

DETD 8.4.3 **Aerosol**-sensitized mouse model

DETD . . . of the MAb to down-regulate the response either BALB/c or A/j mice or Brown Norway rats are treated with nebulized **allergen** for 30 minutes each week for 6 weeks, with molecules in the range of less than 1 .mu.M, and tested. . .

DETD . . . et al. J. Clin. Invest. 89:747-752, 1992), although there was no acute inflammatory cells including eosinophils (Renz et al. J. **Allergy** Clin. Immunol. 89:1127-1138, 1992),

DETD The OVA system represents a good model for assessing immunotherapeutic agents for treatment of dust mite **allergy**. Adjuvant is not used in stimulating allergic responses, thus avoiding nonspecific T cell and other inflammatory responses, as well as. . .

DETD This aerosolized **allergen** model with Der p I or Der p II has been used to demonstrate that immunization of BALB/c mice with. . .

DETD 9.1.1 Sensitization with Aerosolized Dust Mite **Allergen**

DETD . . . in sterile phosphate buffered saline pH 7.3, based on the procedures developed by Gelfand and associates (Renz et al., J. **Allergy** Clin. Immunol. 89:1127-1138, 1992). Up to 5 mice are placed in a sensitization chamber, and the dust mite solution is aerosolized into the inlet port. They are exposed to the aerosolized **allergen** 20 minutes for 10 days. Controls include PBS as a negative control, and Ovalbumin (OVA 1%) and crude, soluble rye. . .

DETD . . . measurement of total and antigen specific IgE by ELISA. Airway responsiveness is measured by testing for increased bronchial resistance

to **allergen** challenge.

DETD 10. Example: Use of anti-urushiol monoclonal antibodies (AB1) to down regulate the T cell response to poison oak and ivy **allergy**

DETD poison oak/ivy **allergy** is a delayed type hypersensitivity (DTH) response to an **allergen** (urushiol) in the oil of the plants. The natural **allergen** is a mixture of 3-n-alkylcatechols with a C15 or C17 side chain either fully saturated e.g. 3-n-pentadecylcatechol, PDC) or having. . . bonds (FIG. 25) (Symes and Dawson, 1954, J. Ann. Chem. Soc. 76:2959-2963). In the initiation of an allergic response the **allergen** first undergoes quinone formation. The quinone then undergoes reaction with cell proteins through Sulfhydryl or amino groups and these products. . .

DETD . . . are sensitized by application of urushiol or PDC (2-4 mg) to the abdomen in acetone (100 .mu.l). Sensitization to the **allergen** is then detected from day 4 up to day 42 by application of urushiol or PDC (50 .mu.g in 10. . . acetone only (10 .mu.l). Ear thickness is then detected using a sensitive pressure micrometer (Mitutoya, Japan) and the difference between **allergen** -challenged and control ears determined.

DETD . . . multiple intravenous injections of Mab using a range of doses (1 to 25 .mu.g). Mice are then sensitized to the **allergen** and challenged on the ear. As an example of this approach, Mab 991 treatment (3 times, 10 .mu.g) suppressed to. . .

CLM What is claimed is:

. . . of an immune response to dust mite, comprising vaccinating an animal that is sensitized to dust mite Der p I **allergen** with an effective amount of monoclonal antibody H11, or a monoclonal antibody that recognizes the same epitope as monoclonal antibody. . .

. . . of an immune response to dust mite, comprising vaccinating an animal that is sensitized to dust mite Der p I **allergen** with an effective amount of monoclonal antibody H11, or a monoclonal antibody that recognizes the same epitope as monoclonal antibody. . .

. . . The method of claim 1 or 2, wherein vaccinating an animal that is sensitized to dust mite Der p I **allergen** with an effective amount of the monoclonal antibody stimulates in said animal an anti-idiotype antibody having specificity similar to an anti-idiotype antibody induced in a human hyposensitized to Der p I **allergen** .

. . . of an immune response to dust mite, comprising vaccinating an animal that is sensitized to dust mite Der p I **allergen** with an effective amount or monoclonal antibody 2C7, or a monoclonal antibody that recognizes the same epitope as monoclonal antibody. . .

. . . of an immune response to dust mite, comprising vaccinating an animal that is sensitized to dust mite Der p I **allergen** with an effective amount of monoclonal antibody 2C7, or a monoclonal antibody that recognizes the same epitope as monoclonal antibody. . .

. . . The method of claim 6 or 7, wherein vaccinating an animal that is sensitized to dust mite Der p I **allergen** with an effective amount of the monoclonal antibody stimulates in said animal an anti-idiotype antibody having specificity similar to an anti-idiotype antibody induced in a human hyposensitized to Der p I **allergen** .

L6 ANSWER 20 OF 21 USPATFULL

ACCESSION NUMBER: 91:40348 USPATFULL

TITLE: **Allergen** absorbent and blocking **aerosol** composition

INVENTOR(S): Powell, Jr., Thomas W., Las Vegas, NV, United States
Schulz, Anthony A., Floyds Knobs, IN, United States
Beall, Gary W., Fairfield, KY, United States

PATENT ASSIGNEE(S): United Catalysts, Inc., Louisville, KY, United States

(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5017361		19910521
APPLICATION INFO.:	US 1989-390862		19890808 (7)
DISCLAIMER DATE:	20060829		
RELATED APPLN. INFO.:	Division of Ser. No. US 1987-99960, filed on 23 Sep 1987, now patented, Pat. No. US 4861584 which is a continuation-in-part of Ser. No. US 1986-940946, filed on 12 Dec 1986, now abandoned which is a continuation-in-part of Ser. No. US 1985-785167, filed on 10 Oct 1985, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Schenkman, Leonard		
LEGAL REPRESENTATIVE:	Vorys, Sater, Seymour & Pease		
NUMBER OF CLAIMS:	13		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)		
LINE COUNT:	885		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI **Allergen** absorbent and blocking **aerosol** composition

AB An **allergen** absorbent and blocking **aerosol** composition for topical application to the skin comprises a highly activated organophilic clay of the smectite type, ion exchanged with. . . vehicle comprising one or more long-chain hydrocarbons or volatile silicone oils. The composition is preferably in the form of an **aerosol** composition additionally comprising an **aerosol** propellant. The composition is applied to the skin, preferably by spraying, to block and absorb the **allergenic** oils of toxic plants such as poison ivy and the like.

SUMM This invention relates to an **allergen** absorbent and blocking **aerosol** composition for topical application to the skin to prevent allergic skin reactions of persons due to contact with poison ivy,. . .

SUMM Strangely, however, the **allergen** urushiol does not appear to affect animals and **household** pets. Cats and dogs can be exposed and actually play in the area without being affected, but can infect their. . .

SUMM . . . such as silica gel, alumina and activated charcoal. Additionally, he saturated samples of cloth and mordanted them with salts of **aluminum**, copper and chromium.

SUMM . . . Waali's work and tested a wide variety of agents, including Sure.RTM. antiperspirant and Drysol.TM., both of which contain the antiperspirant **aluminum** chlorohydrate. The Sure.RTM. antiperspirant, in the **spray** form, contains **aluminum** chlorohydrate, cyclomethicone, quaternium-18 hectorite, perfume, ethanol, isobutane and propane. This composition is reported to contain from 1 to 5% quaternium-18. . .

SUMM This goal has now been achieved by an **allergen** absorbent and blocking composition comprising a highly-activated organophilic clay gel and a long-chain hydrocarbon or volatile silicone fluid vehicle. The. . .

SUMM According to this invention, the **allergen** absorbent and blocking composition is topically applied to the skin and clothes and thereby effectively blocks the skin and adjacent. . .

DETD . . . apparatus. Higher-boiling activators, having higher flash points, such as propylene carbonate, may also be used. Clays used to prepare the **allergen** absorbent and blocking compositions of this invention are the smectite-type clays, having a high cation exchange capacity. The cation exchange. . .

DETD . . . previously indicated, the invention relates to the discovery that organo-treated clays of the smectite type, which are highly

activated, produce **allergen** absorbents and blocking gels for topical application to the skin to prevent contact of the skin with the allergens produced. . .

DETD **Aerosol** propellants

DETD **Aerosol** propellants are well known in the art and have been described in some detail, as for example, in U.S. Pat.. . .

DETD . . . is possible to utilize azeotropic mixtures of monochlorodifluoromethane and dimethyl ether in admixture with butane or isobutane to produce useful **aerosol** propellants with a vapor pressure in the range of 50 to 60 psig. Even noble gases, such as helium, neon, argon, krypton or mixtures thereof, have been proposed and have been used by some as propellants for an **aerosol** product. Thus, Wittenhorst, in U.S. Pat. No. 4,380,505, proposes their use so that the problems of chlorofluorohydrocarbon propellants are not. . .

DETD **Aerosol** filling

DETD There are three different methods generally employed for filling assorted **aerosol** containers. These are described by Cunningham in U.S. Pat. No. 3,857,422, and are incorporated herein by reference. According to Cunningham,. . .

DETD A second method employed for filling **aerosol** type containers is commonly referred to as the "under cap" method. In this operation, the product (at room temperature) is. . .

DETD A third method employed for filling **aerosol** containers is known as "pressure filling." In this operation, the product is put into a container at room temperature, after. . .

DETD . . . blocked by the clay platelets 16 and then encounter succeeding alkyl groups where absorption takes place. Additionally, the organophilic clay **aerosol** composition can be sprayed onto the clothes or tools, so as to suspend and inactivate the **allergen** until the clothes or tools can be laundered. Otherwise, there is some danger that other persons can be exposed to the **allergen** when these are laundered or that the worker himself may be reexposed by contact with the unwashed clothes at a. . .

DETD . . . about 30 minutes. This allowed the quaternary ammonium compound to ion exchange with the clay particles. The slurry was then **spray** dried into a fine powder. This product is known in the cosmetic industry as quaternium-18 bentonite. The powdered organo-clay was. . . then produced a gel containing 11.3% organo-clay, 84% cyclomethicone and 4.3% SD-40 alcohol. The gel was then loaded into an **aerosol** container at room temperature. A valve assembly was inserted into the container and the valve was crimped. An A-46 mixed hydrocarbon propellant was then introduced through the valve assembly under pressure to produce an **aerosol** composition within the can of 30:70 weight ratio of gel to propellant. As previously mentioned, the A-46 propellant is 84%. . .

DETD . . . study was carried out, comparing the results of pretreatment with Sure.RTM. to pretreatment with Drysol.TM. (a 20% w/v concentrate of **aluminum** chloride hexahydrate in alcohol; a solution of **aluminum** chloride (hexahydrate) 20% w/v in anhydrous ethyl alcohol (S.D. alcohol) 93% v/v." Physicians Desk Reference, 36th Ed., 1982. Medical Economics. . .

DETD This preliminary study, comparing the high concentration of the **aluminum** salt (Drysol.TM.) to Sure.RTM., indicated that the alcoholic solution was less effective than Sure.RTM..

DETD In the next series of experiments, the subjects were pretreated with breakdown products of Sure.RTM. that either were missing the **aluminum** chlorohydrate or the suspending agents (hectorite and propylene carbonate). The patch tests with urushiol and the patch test readings were. . .

DETD These experiments compared the blocking effect of Sure.RTM. with its ingredients, i.e. without fillers and without **aluminum** chlorohydrate. In one instance, Sure.RTM. was compared to the **aluminum** compound containing preparation without the fillers, i.e. the quaternium-18 hectorite, and the two were equal on two

occasions. Sure.RTM. was more effective in one and definitely more effective in four instances. In no instance was the **aluminum** salt more effective than Sure.RTM.. Sure.RTM., containing only the fillers and no **aluminum**, was compared to Sure.RTM. and the two preparations were equal on two occasions. Sure.RTM. was more effective than the filler. . . hand, the filler was more effective than Sure.RTM. on two occasions. Finally, in direct comparison of the filler versus the **aluminum** preparation, the filler was more effective than the **aluminum** salt on two occasions and much more effective in four additional trials. In filler preparations.

DETD An **aerosol** sample was prepared in the same manner as described in Example 1, except that only the cyclomethicone and alcohol were added to the **aerosol** can prior to charging with the A-46 mixed hydrocarbon propellant. The vehicle to propellant ratio, therefore, was 30:70. This sample. . .

DETD . . . urushiol may have some affinity for the active surface of the clay platelet itself. The material is preferably applied in **aerosol** from onto the skin and clothes, prior to encountering the urushiol-producing plants, such as poison ivy, oak or sumac. The. .

CLM What is claimed is:

1. An **aerosol allergen** barrier composition for topical application consisting essentially of: A. a barrier composition comprising (1) from about 5% to about 15%. . . atoms, and (2) from about 95% to about 85% by weight of a pharmaceutically acceptable non-toxic vehicle; and B. an **aerosol** propellant

2. The **aerosol** composition of claim 1 comprising from about 10 to 50 parts by weight of said barrier composition and about 90 to 50 parts by weight of said **aerosol** propellant.

3. The **aerosol** composition of claim 1 comprising about 30 parts by weight of said barrier composition and about 70 parts by weight of said **aerosol** propellant.

4. The **aerosol** composition of claim 1 wherein said smectite clay is a highly activated clay.

5. The **aerosol** composition of claim 1 wherein said vehicle is a long chain fatty acid ester.

6. The **aerosol** composition of claim 1 wherein said vehicle is a silicone fluid.

7. The **aerosol** composition of claim 1 wherein said quaternary ammonium compound is quaternium-18.

8. The **aerosol** composition of claim 1 wherein said ion exchanged smectite clay is quaternium-18 bentonite.

9. The **aerosol** composition of claim 1 wherein said ion exchanged smectite clay is quaternium-18 hectorite.

10. The **aerosol** composition of claim 1 additionally comprising a low molecular weight polar organic activator for said smectite clay.

11. The **aerosol** composition of claim 10 wherein said activator is propylene carbonate.

12. The **aerosol** composition of claim 10 wherein said activator is a short chain alkanol.

13. The **aerosol** composition of claim 1 wherein said propellant is a mixture of low-boiling liquefied alkanes.

L6 ANSWER 21 OF 21 USPATFULL

ACCESSION NUMBER:	89:71837 USPATFULL
TITLE:	**Allergen** absorbent and blocking **aerosol** composition
INVENTOR(S):	Powell, Jr., Thomas W., Las Vegas, NV, United States Schulz, Anthony A., Floyds Knobs, IN, United States Beall, Gary W., Fairfield, KY, United States
PATENT ASSIGNEE(S):	United Catalysts, Inc., Louisville, KY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4861584		19890829
APPLICATION INFO.:	US 1987-99960		19870923 (7)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1986-940946, filed on 12 Dec 1986, now abandoned which is a continuation-in-part of Ser. No. US 1985-785167, filed on 7 Oct 1985, now abandoned

DOCUMENT TYPE:	Utility
FILE SEGMENT:	Granted
PRIMARY EXAMINER:	Schenkman, Leonard
LEGAL REPRESENTATIVE:	Vorys, Sater, Seymour and Pease
NUMBER OF CLAIMS:	9
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT:	894

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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DETD **AEROSOL** PROPELLANTS

DETD **Aerosol** propellants are well known in the art and have been described in some detail, as for example, in U.S. Pat.. . .

DETD . . . is possible to utilize azeotropic mixtures of monochlorodifluoromethane and dimethyl ether in admixture with butane or isobutane to produce useful **aerosol** propellants with a vapor pressure in the range of 50 to 60 psig. Even noble gases, such as helium, neon, argon, krypton or mixtures thereof, have been proposed and have been used by some as propellants for an **aerosol** product. Thus, Wittenhorst, in 4,380,505, proposes their use so that the problems of chlorofluorohydrocarbon propellants are not encountered, since the. . .

DETD **AEROSOL** FILLING

DETD There are three different methods generally employed for filling assorted **aerosol** containers. These are described by Cunningham in U.S. Pat. No. 3,857,422, and are incorporated herein by reference. According to Cunningham,. . .

DETD A second method employed for filling **aerosol** type containers is commonly referred to as the "under cap" method. In this operation, the product (at room temperature) is. . .

DETD A third method employed for filling **aerosol** containers is known as "pressure filling." In this operation, the product is put into a container at room temperature, after. . .

DETD . . . blocked by the clay platelets 16 and then encounter succeeding alkyl groups where absorption takes place. Additionally, the oragnophilic clay **aerosol** composition can be sprayed onto the clothes or tools, so as to suspend and inactivate the **allergen** until the clothes or tools can be laundered. Otherwise, there is some danger that other persons can be exposed to the **allergen** when these are laundered or that the worker himself may be reexposed by contact with the unwashed clothes at a. . .

DETD . . . about 30 minutes. This allowed the quaternary ammonium compound to ion exchange with the clay paticles. The slurry was then **spray** dried into a fine powder. This product is known in the cosmetic industry as quaternium-18 bentonite. The powdered organo-clay was. . . then produced a gel containing 11.3% organo-clay, 84% cyclomethicone and 4.3% SD-40 alcohol. The gel was then loaded into an **aerosol** container at room temperature. A valve assembly was inserted into the container and the valve was crimped. An A-46 mixed hydrocarbon propellant was then introduced through the valve assembly under pressure to produce an **aerosol** composition within the can of 30:70 weight ratio of gel to propellant. As previously mentioned, the A-46 propellant is 84%. . .

DETD . . . study was carried out, comparing the results of pretreatment with Sure.RTM. to pretreatment with Drysol.TM. (a 20% w/v concentrate of **aluminum** chloride hexahydrate in alcohol; a solution of **aluminum** chloride (hexahydrate) 20% w/v in anhydrous ethyl alcohol (S.D. alcohol) 93% v/v." Physicians Desk Reference, 36th Ed., 1982. Medical Economics. . .

DETD This preliminary study, comparing the high concentration of the **aluminum** salt (Drysol.TM.) to Sure.degree., indicated that the alcoholic solution was less effective than Sure.RTM..

DETD In the next series of experiments, the subjects were pretreated with breakdown products of Sure.RTM. that either were missing the **aluminum** chlorohydrate or the suspending agents (hectorite and propylene carbonate). The patch tests with urushiol and the patch test readings were. . .

DETD These experiments compared the blocking effect of Sure.RTM. with its

ingredients, i.e. without fillers and without **aluminum** chlorohydrate. In one instance, Sure.RTM. was compared to the **aluminum** compound containing preparation without the fillers, i.e. the quaternium-18 hectorite, and the two were equal on two occasions. Sure.RTM. was more effective in one and definitely more effective in four instances. In no instance was the **aluminum** salt more effective than Sure.RTM.. Sure.RTM., containing only the fillers and no **aluminum**, was compared to Sure.RTM. and the two preparations were equal on two occasions. Sure.RTM. was more effective than the filler. . . hand, the filler was more effective than Sure.RTM. on two occasions. Finally, in direct comparison of the filler versus the **aluminum** preparation, the filler was more effective than the **aluminum** salt on two occasions and much more effective in four additional trials. In one instance, the **aluminum** salt was more effective than the filler preparations.

DETD An **aerosol** sample was prepared in the same manner as described in Example 1, except that only the cyclomethicone and alcohol were added to the **aerosol** can prior to charging with the A-46 mixed hydrocarbon propellant. The vehicle to propellent ratio, therefore, was 30:70. This sample. . .

DETD . . . urushiol may have some affinity for the active surface of the clay platelet itself. The material is preferably applied in **aerosol** from onto the skin and clothes, prior to encountering the urushiol-producing plants, such as poison ivy, oak or sumac. The. .

CLM What is claimed is:

1. A method of protecting the skin from contact with an **allergen** comprising applying to the skin of a subject in need thereof a barrier composition consisting essentially of (1) from about. . .

8. A method of preventing contamination of clothes and utensils with an **allergen** comprising applying to said clothes and utensils a barrier composition consisting essentially of (1) from about 5% to about 15%. . .